THE TERM ABSOLUTE IN PROCESS PHILOSOPHIES: A STUDY OF INFLUENCES ON THE DEVELOPMENT OF MODERN PROCESS THOUGHT

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SUMMARY

The paper begins with an analysis of the fact that a confrontation between scientific mechanism and vitalism, in the late nineteenth and early twentieth centuries, contributed to the development of what is today called "Process Philosophy." During this same period, in which new sciences arose and old sciences were transformed, men, who were sensitive to metaphysical questions, became aware of a pressing demand to test established cosmological formulations against the rapid advances made in scientific research. One of the first dilemmas to emerge from these efforts was that, from a metaphysical viewpoint, the sciences were producing conflicting data in support of both absolute mechanism and also ultimate pluralism. In the hands of such thinkers as Bergson, Driesch, Ward, Morgan and Whitehead these two alternatives were clarified and evaluated through a gradual realisation of new possibilities being opened by science for the reinterpretation of the term "absolute". How an issue over the meaning of the term absolute came to be an element in the creation of a Process cosmology, that was finally able to incorporate data from all the new sciences, is our first topic.

However, the development of Process thought cannot be understood only as a response to modern science. Its formulation was also aided because Process thinkers had a solid grounding in philosophical tradition. In particular the field of epistemology -- most notably the Kantian and Hegelian schools -- supplied insights about how the term absolute could

be understood and applied. Indeed, it was the Process discoveries about the term absolute, based on the data from both the sciences and philosophy, that helped to pave the way for such concepts as "dipolar universe," "temporal duration," "ultimate creativity," and "emergent evolution."

The analysis of developments in the understanding of the term absolute leads both to a general definition of Process Philosophy, and also becomes a means of sorting out the various strands of thought that led up to the writings and conclusions of Alfred North Whitehead. Approximately one-half of this paper is a survey of the preliminary efforts at the creation of a systematic Process position. Once we see a complete Process cosmology explicated in Whitehead's works, our interests can quite naturally shift to his particular influence on subsequent developments. We are especially interested in how Whitehead's understanding of the term absolute shapes the development of various Process Theologies.

In our study we suggest that Process theologians can be divided into two groups according to whether or not they accept Whitehead's point that the term absolute refers to one "pole" of a dipolar God. Furthermore, the different conclusions of the two groups on such topics as Christology, soteriology, eschatology and God as Creator have part of their explanation in the two groups' respective understandings of the term absolute.

Hartshorne, Christian, Williams and Ogden represent philosophers of religion and theologians who adopt Whitehead's understanding of the term absolute. On the other hand, Thornton, Pittenger, Meland and Cobb illustrate thinkers who are

sympathetic to many of Whitehead's ideas, but who attempt to alter his understanding of the term absolute.

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CONTENTS

INTRODUCTION

The thesis proposed in this paper is: that a clear understanding of the use of the term "absolute" in Process Philosophy is essential, if one wishes to relate Process to a context reflecting both the philosophical and scientific influences which promoted its development; and that an understanding of the Process use of the term absolute greatly clarifies the influence of Process thought upon certain theological formulations. As our thesis is, in part, a way of defining "Process Philosophy," it would be premature to begin with other than a provisional definition.

In this paper the term "Process" will be used in two different ways, and we must begin by distinguishing them. First the term "Process" will be used as the name for a cosmology which adopts a concept of universal "process." Second, the term "process" appears as a specific interpretation of the concept of activity. According to this view, process is universal activity understood as a continuity of antecedences and consequences brought about by an interrelation between "true" unity and "true" multiplicity. These usages will be clarified in our first several Chapters.

For those who are somewhat familiar with Process, the title of our study may come as a surprise. Generally theories of "relativity," rather than discussions about an "absolute," are associated with Process. There are reasons why this association is justified. In the first place, Process accepts as valid, and incorporates, many of the cosmological formulations proposed by modern theories of relativity. Furthermore, the

topic of "relationships" dominates many of the works whose authors are called Process philosophers and theologians. Finally, absolutisms, finalisms and determinisms are rejected by Process as inconsistent and unsupportable.

However, in spite of the above, Process does not ignore a concept of the absolute. Process retains absoluteness as an aspect of reality which, along with relatedness, forms a "dipolar" universe. More precisely, Process makes an absolute pole and a pole of relativity complementary aspects of the universe.

From the standpoint of dipolarity the absolute pole always appears in company with the relative pole. Together these poles "function" in realising the universal principle of process, which may be thought of as an "abstract" principle. However, taken separately each pole has a "concrete" content the importance of which is not exhausted by its functional associations. To be fully understood each pole must be considered in both its abstract and concrete aspect. The reason for mentioning this point early in the paper is twofold. First the use of the term absolute by Process can only be understood if one sees that the two poles have different aspects, depending on whether they are taken together or separately. Second the dual aspect of each pole is the reason for our use of the term "role of the absolute" rather than "function of the absolute". The former, we believe, comes nearer to capturing the concept that Process' absolute pole has both a concrete content and also an abstract reference in terms of the universal principle of process.

We should next consider how the term absolute is used by Process apart from the concept of dipolarity. Kant, for

example, observed that the term "absolute" is applied in two senses. First in the narrow sense it means that "something is true of a thing in itself".[1] In terms of this usage, one might say that the relative pole is absolutely relative, or that the principle of process is absolutely a process.

Process thought would agree with the Kantian suggestion that such a usage of the term absolute is ambiguous. Therefore, it would favour a wider use of the term, which is described by Kant as implying that something is the same "in every relation possible." According to this wider usage something referred to as absolute must have an inner necessity, which "remains the same in all relations possible". In this sense the relative pole cannot be absolute. The entities which make up its content vary from instant to instant. On the other hand, the absolute pole does have an inner necessity by which it is, abstractly considered, always the same.

However, having arrived at an agreement that the term "absolute" should be used in the wider sense, the ambiguous nature of the term is not completely resolved. When the term absolute is applied in the widest possible sense one may assume that (1) it refers to the total content of the universe as an unified Given, or (2) that it refers to an attribute of some ultimate, universal principle. Between these two interpretations one can detect a significant difference in emphasis. The former emphasises the fact that the Absolute has all reality as its concrete content, while the latter suggests that absoluteness is a characteristic of an abstract principle which in turn directs all reality. The former suggests that the Absolute

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[1] Kant's Critique of Pure Reason. trans., Norman Kemp Smith. (London:Macmillan and Co., Limited, 1929.) pp.316-318.

"is" the unity of all reality; the latter suggests that an absolute principle "functions" to unify all reality. The former might be illustrated by Hegelian idealism. For Hegel the outcome of his dialectic is that the unity of all reality will be the content of the Absolute. The latter can be illustrated by Newton's principle of gravity. This principle holds reality together, but is itself an abstraction having no concrete content. The former permits a strong ontological basis for its concept of the Absolute, but it is weak in accounting for "becoming", i.e. change or activity. The latter suggests that a concept of becoming or progress is connected with the absolute physical principle, but, having a weak ontology, it ultimately denies true "being" to "becoming."

The point to be observed is that Process thought accepts neither of these interpretations of the wider meaning of the term absolute. While it does say that the absolute pole has a concrete content, the acceptance of the relative pole means that this content cannot be all of reality. Likewise, while Process does say that absoluteness applies to an abstract principle, this principle does not function apart from the relative pole, and thus it does not direct all reality.

When the widest sense of the term absolute is taken to mean that the Absolute contains all of reality or that absoluteness is an attribute of some ultimate principle, Process, as we shall see, views the resulting formulations as deterministic. It is in an effort to avoid determinism that Process wants to equate the term absolute with a specific content other than all reality, and thereby also avoid suggesting that absoluteness is an attribute of some ultimate principle.

What in fact Process does is to suggest that both of the above interpretations of the term absolute are significant only when taken together and in the context of a dipolar universe. This view leads to a new understanding of the term "absolute," but it does not lack connections with traditional meanings. The understanding is that of a "role"; implying that the absolute pole has a definite character of its own and also plays a part in the cosmic drama.

How Process reached the conclusion of the complementary nature of an absolute pole and a relative pole as necessary aspects of process is the topic of Chapters I through XIX. In Chapters I through IX we will consider how the history of certain scientific developments, during the end of the last century and the beginning of our present century, influenced the formulation of the understanding of the term absolute in Process metaphysics.

At the beginning of our period of study, the guiding principle of most scientific investigations was a conviction that the cosmos was ultimately mechanistic. Mechanism is a position which holds that a single absolute principle of order underlies reality. Newton, whose physics was still serving as the foundation for scientific investigations, saw this principle manifested in the Laws of Gravity.

Given the presupposition of an absolutely ordered cosmos, the test for scientific validity was the discovery of how various aspects of the phenomenal world exemplified this order. One must not be misled into believing that the multitude of scientific laws implied an ultimate pluralism. Many laws could share the attribute of absoluteness because they could be interpreted as consistent formulations of the single absolute

law of cosmic order. Within this structure, a hypothesis was a proposal about how phenomena, apparently inconsistent with an ordered cosmos, could be reconciled to that order. Research, therefore, was the collection of data establishing any such reconciliation. In view of the above assumptions, physics, as we shall see, has an implicit metaphysics.

Mechanism was popular because it worked beautifully. With the help of Newtonian physics and metaphysics, the sciences reached new heights of achievement. Because mechanism then dominated science and greatly influenced metaphysics and in many ways continues to do so, and because the assumption of absolute physical laws is a key to its procedures, any position, such as Process, which rejects pure mechanism, must confront the question of absolute order. That is, if one is unhappy with traditional mechanistic conclusions, one has the choice of either suggesting that physical laws need to be reformulated, which is what Einstein said, or that the physical laws are not absolute, which is the Process position.

To deny the absoluteness of physical laws suggests the belief that the universe is chaotic -- the position of some existentialists. Few men of science could be happily existentialist. However, for reasons that are discussed in our early Chapters, some, nevertheless, felt it essential to call mechanism into question. Therefore, the issue which science raised for Process metaphysics is whether or not scientific data support the conclusion that philosophy must always choose between absolute physical order or total chaos.

We will begin Chapter I by discussing mechanism in order to show how it presents the issue of the absoluteness of

physical laws to both physics and metaphysics. This will be followed in Chapter II by a discussion of scientific/philosophical grounds for rejecting mechanistic conclusions in favour of a pluralistic theory. In Chapter II we will give special attention to so-called "vitalistic" arguments. Finally, in Chapters III through IX we will demonstrate how Process resolves certain physical and metaphysical issues by showing that, given a dipolar universe, scientific data must be interpreted in a way that makes necessary a choice between order and chaos, i.e. unity and multiplicity, the one and the many, the absolute and the relative.

Of course, the meaning of the term absolute was a long-standing topic of philosophical discussion at the time of the rise of modern science. Chapters X through XIX of our paper are concerned with fitting Process into a philosophical context, by comparing its use of the term absolute with the usage of that term in other contemporary philosophies.

The choice of this approach is not an arbitrary one. The tradition of German Idealisms, which dominated philosophy at the early part of our period of study, illustrated, unlike mechanism, an understanding of the "Absolute" as that which contained all reality. The chief difference between the two systems may be summarised by saying that mechanism was materialistic, while idealism was spiritualistic. Spiritualism centered many of its formulations around explanations for the existence in the universe of human self-consciousness, which it argued could not be explained in terms of absolute physical laws. The unity which existed in a universe containing consciousness had to be of a spiritual order. The source of unity was not a physical principle, but a supreme "Subject".

As only an absolute Subject -- God -- could account for a universe containing consciousness, the absolute subject can also be thought of as the ground of consciousness. In this formulation any particular knowledge content can be validated only if it is demonstrated to be consistent with the spiritual order of the cosmos. This view also means that knowledge derived wholly from the material laws cannot be ultimately valid.

With reference to whether absoluteness should be attributed to a concrete Subject or an abstract physical principle, idealism and mechanism appear to hold opposite positions. However, in terms of Process thought both positions lead to determinism, which in large part results from their respective understandings of the term absolute.

Of course, what has just been said requires fuller development. However, the point to be introduced here is that the understanding of the term absolute can serve as a touchstone to illustrate the ideals, which both related and divided many sciences and philosophies in the late nineteenth and early twentieth centuries. Finally, by looking at the Process understanding of the term absolute, we arrive at a common denominator through which Process can be related to both disciplines.

The usual term for philosophical discussions concerning the problem of human knowing -- including self-knowledge -- is epistemology. Therefore, the topic of Chapters X through XIX is also the topic of epistemology. We will begin with a discussion of idealism, and show its relationship to scientific mechanism with respect to the understanding of the term absolute. Next we will consider the development of several epistemologies influenced by realisms which, supported by the

anti-mechanistic scientific pluralisms, rejected the deterministic aspects of idealism's "Absolute Subject." Finally we will consider how Process does away with the mind/matter dualism, which develops as a result of the differences between idealism and realism, by suggesting that for consciousness the absolute pole is both "subject" and "object."

As our Introduction has already suggested, there is a direct parallel between the Process metaphysical understanding of a dipolar universe and its explanation of consciousness. Therefore, the Process understanding of the term absolute helps to define Process thought both in terms of science and philosophy. Indeed, our point is that only in terms of the understanding of the term absolute in Process thought can one clearly see the full dynamics of how Process, as a metaphysics, is able to incorporate data from the scientific and philosophical disciplines. At the conclusion of Chapter XIX Process Philosophy will have been defined as a position which holds that activity, including self-conscious activity, is a "process" of a dipolar universe.

Chapters XX through XXVII are devoted to an analysis of how the Process understanding of the term absolute in metaphysics becomes a significant aspect of the Process influence on theology. As questions about the nature of absoluteness are a regular part of theological discussions, the field of theology not only illustrates our thesis, but also helps to clarify the "role of the absolute" in Process thinking.

On the one hand, this paper attempts to survey the field of Process thought. However, the most fully developed and influential Process metaphysic is that of Alfred North Whitehead. Because of this, we will give his works far and away

the greatest attention. In Chapters XXI through XXVI, for example, we will discover that the majority of prominent Process theologians are either students of Whitehead, or otherwise greatly influenced by the "Whiteheadian School."

On the other hand, this is not merely a study of Whiteheadian thought. Our purpose is to trace general influences which led to the development of Process. Therefore, we do not attempt to show how Whitehead himself was specifically influenced by the other thinkers in the field. For example, we are not going to suggest that Whitehead represents a final synthesis of all the elements of Process thinking. He does not. Plainly his works, as he himself says, are influenced by many thinkers. They show parallels with the works of other writers considered here, as well as differences from all of them. What we do want to show is that there were several attempts to develop Process systems. These attempts all reflect certain common influences, and generally influence one another.

Certainly, one of the reasons for Whitehead's influence is that he is very consistent in developing the implications of the concept of process throughout his metaphysics. In the case of most other writers, who are sympathetic to the concept of process, not all of their works are dominated by the concept in the sense that Whitehead's are. This means that in the case of certain writers we will tend to consider only the portions of their works which do, in our opinion, reflect the idea of the concept of process. In other words, we will point to the respects in which they are Process thinkers, realising that one could also make a good case for the fact that their works contain elements which are inconsistent with the concept

of process. We have, of course, attempted not to misrepresent the overall tone of a writer's position by searching for the Process aspects of his thinking.

PART I: THE TERM ABSOLUTE IN PROCESS METAPHYSICS

CHAPTER I: Mechanism

The term "mechanism" as applied here refers to the position, characteristic of the physical sciences in the late nineteenth century, that all occurrences in the phenomenal world follow fixed natural laws, which reflect an absolute principle of cosmic order. The function of this principle is to predetermine all events causally. Moreover, the term mechanistic may be used in a wider sense to describe many of the scientific, philosophical and metaphysical positions at the end of the nineteenth century. Our first purpose in this Chapter is to illustrate mechanism by showing how widespread was the scientific conviction that reality is absolutely ordered. Second we will show that mechanism suggests a particular understanding of the term absolute. Finally we will see how mechanism's use of the term absolute relates to spiritualism's understanding of the term.

A. Mechanism in Science

As applied toward the end of the nineteenth century, the term mechanistic refers to the position, generally adopted by the physical sciences, especially physics itself, which maintains that the laws governing the material world are applicable, without exception, to all reality. As James Ward said, "...mechanical explanation has therefore long been accepted as the ne plus ultra of what a scientific explanation can be."[2]

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[2]Ward, James. The Realm Of Ends or Pluralism And Theism. (Cambridge: The University Press, 1911). p.4.

From the scientific viewpoint the phrase "without exception" was used with real confidence only after the middle of the nineteenth century. And it is this part of the mechanistic explanation which will become the key issue for biology and philosophy. To be more specific, mechanism of the late nineteenth century suggested that even the problems posed by the apparently ultimate plurality of life forms were merely temporary difficulties for those who supported the universality of the physical laws.

Indeed the reason for many of the strong reactions against mechanism during this period was the boldness with which physical science applied it to the phenomenon of life. Of course, it is true that there were earlier attempts to present a purely mechanistic interpretation of life. The most outstanding example is Descartes in his works De Homine and De Formatione Foetus. However, wide acceptance of such a view, even among scientists, did not take place until the nineteenth century.

William McDougall, in his book Body and Mind, suggests that three key factors in the scientific world accounted generally for this wider acceptance of mechanism. These three factors were: (1) the mechanistic account of evolution suggested by Darwin's principle of adaptation through Natural Selection; (2) the discovery in physiology that the brain is a vast and complex system of reflex nerve paths; (3) the establishment of the Law of the Conservation of Energy.[3] These points require some development.

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[3] McDougall, William. Body and Mind. "A History And A Defense Of Animism." (London: Methuen & Co., Ltd., 1911). p.48.

Charles Darwin radically changed the scientific approach to life. As G. Gaylord Simpson says, his two greatest contributions were the establishment of evolution as an incontestable fact; and the identification of Natural Selection as a major element in adaptation.[4]

Essentially Darwin viewed Natural Selection as a factor in the process of elimination of those individuals that did not show the characteristics which happened to be useful for the survival of their species of organism.[5] However, to grasp the mechanistic nature of Natural Selection one must see it in terms of Darwin's theory of "descent," which Hans Driesch describes as follows: "The theory of descent is the hypothetic statement that the organisms are really allied by blood among each other, in spite of their diversities."[6]

The chief characteristics of each species are passed materially between generations by some undetermined process of heredity, i.e. some abstract physical principle. Selection is, so to speak, the elimination by chance of any defective products of this heredity.

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[4]Simpson, George Gaylord. The Meaning of Evolution. "A Study of the History of Life and of Its Significance for Man." (New Haven: Yale University Press, 1952). p.268. Both Simpson and also Hans Driesch (The Science and Philosophy of Organism, 1908) point out that Natural Selection was proposed by Darwin as an element within the process known as adaptation. The extreme position taken by the so-called Neo-Darwinians, that Natural Selection was the sole explanation for adaptation, is not the direct impact of Darwin's work. Modern biology, while continuing to accept Natural Selection in the general sense suggested by Darwin, clearly rejects the much more radical Neo-Darwinian interpretation.

[5]Driesch, Hans. The Science and Philosophy of Organism. (London: Adam and Charles Black, 1908). Vol. I, p.290.

[6]ibid. p.251.

To say that Natural Selection totally explained adaptation was of course impossible. Adaptation thus explained continues to have the appearance of purposefulness, which eliminates its purely mechanistic explanation. However, Darwin was successful in introducing a major step toward a purely mechanistic understanding of adaptation.[7]

In the hands of the Neo-Darwinians, moreover, Natural Selection was a closer ally for physical mechanism. The fluctuating variations in organisms were explained as merely accidental differences in the arrangement of particles of matter in the body, and nothing more.[8]

Undoubtedly part of the reluctance of some to accept the position of the Neo-Darwinians was the somewhat different -- but earlier -- theory of adaptation proposed by Lamarck. Here we are confronted with a confusion between Lamarck's own teachings and those of his followers, the Neo-Lamarckians.

It is fair to say that Lamarck was himself somewhat less materialistic or mechanistic than Darwin. His theory centers around the belief that adaptation resulted from the conscious effort of the individual organism.[9] The most famous example

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[7]The contemporary biologist Jacques Monod helps to clarify the Darwinians' problem. He says, "Indeed natural selection operates upon the products of chance and knows no other nourishment; but it operates in a domain of very demanding conditions, from which chance is banned. It is not to chance but to these conditions that evolution owes its generally progressive course, its successive conquests, and the steady development which it seems to suggest." Chance and Necessity. "An Essay on the Natural Philosophy of Modern Biology." trans., Austryn Wainhouse. (London: Collins, 1972). p.114.

[8]Driesch. Philosophy Of Organism. Vol. I. p.283.

[9]Lamarck. Philosophie zoologique. trans., Alpheus S. Packard. Lamarck The Founder of Evolution. "His Life and Work." (New York: Longmanns, Green, And, Co., 1901). p.329.

of the Lamarckians', used against the Darwinians, was that something -- some conscious effort -- must have made the first fish leave the water and walk on land. That choice cannot be explained by Darwin's theory of Natural Selection; for until the fish left the water any adaptation making it suitable to live on land would have made it less suitable to the water. Therefore, by the theory of Natural Selection it could never have reached the land at all.[10]

Henri Bergson points out that under the Neo-Lamarckians conscious effort became the sole explanation for adaptation. This probably was not Lamarck's intention. The weakness of the Neo-Lamarckians is quite clear when explicated by Bergson: "But if this cause is nothing but the conscious effort of the individual, it cannot operate in more than a restricted number of cases -- at most in the animal world, and not at all in the vegetable kingdom."[11]

The theory of Natural Selection as the explanation for adaptation is biology's contribution to the popularity of the mechanistic theory. The second contribution, that of psycho-physical parallelism, was made by the emerging science of physiology. Bergson gives a very concise definition of parallelism. He says that parallelism assumes that physiological brain states and psychical mental states are parallel.[12]

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[10]For a more complete discussion of Lamarckian "vitalism" cf. Driesch. Philosophy Of Organism. Vol. I, p.283f.

[11]Bergson, Henri. Creative Evolution. trans., Arthur Mitchell. (London: Macmillan and Co., Limited, 1911). p.92.

[12]Bergson, Henri. Matter And Memory. trans., Nancy Margaret Paul and W. Scott Palmer. (London: Swan Sonnenschein & Co., Lim., 1911). p.xi.

Physiology's discovery of the nervous system and its biochemical functioning was the primary source for the concept of parallelism. Based on these discoveries the assumption was made that all mental processes could be explained by the purely mechanistic laws of brain chemistry.

Of course, vast amounts of important research went into the establishment of the theory of parallelism. Therefore, the fact that we are mentioning it only briefly does not indicate its lack of importance. However, it will be more valuable to reserve further comment until we consider the various objections to parallelism.[13]

The third, and in the minds of many the most conclusive, argument for a mechanistic theory was the establishment of the Law of The Conservation of Energy, the first law of thermodynamics, and the Theory of Entropy, the second law of thermodynamics. This is a contribution made by physics to the mechanistic theory.

Simply stated, the first law of thermodynamics is that energy can neither be created nor destroyed. The best way to show why this would suggest mechanism is through an example, such as the following one used by Haldane: "Any 'guidance' of living organisms by the vital principle would imply a creation or destruction of energy; and this would be the case even if

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[13]Parallelism quickly became a term associated with psychology. Within this discipline it meant that all mental states could be accounted for through one of three explanations: (1) by some stimulation reaching the organism from its environment; (2) by some chemical function or malfunction; (3) by some structural injury to the nervous system. Hans Driesch, for example, nearly always associates parallelism with psychology.

the energy created in the living substance were again destroyed before it could escape to the outside, and so become measurable."[14]

In other words, anything which alters the physical laws could do so only by the creation or destruction of energy, which according to thermodynamics is not possible. Therefore, in all cases, even in the case of life, the mechanistic laws apply without exception. This means that no truly unique factor can be introduced into the universe; rather our understanding of the laws of nature can only be expanded and refined.[15]

Ward defines entropy as, "The steady downward trend, the katabolic, leveling tendences attributed to unchecked mechanism..."[16] The theory of entropy stems in part from the introduction of the concept of potential energy to accompany the then already established theory of kinetic energy. With the introduction of the concept of potential energy, activity became understood as the conversion of potential into kinetic energy. According to the theory of entropy the potential energy in the universe will eventually be depleted and all activity will cease.

The suggestion of the possibility of an entropic state arose from the observation that areas having various air

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[14]Haldane, J.S. Mechanism, Life And Personality. "An Examination Of The Mechanistic Theory Of Life And Mind." (London: John Murray, 1913). p.28.

[15]The Law of The Conservation of Energy was introduced in Germany by von Helmholtz and by Joule in England at about the same time.

[16]Ward. The Realm Of Ends. p.9.

temperatures (differing potentials) demonstrated a tendency to establish a unified temperature. Once this occurred, the movement of molecules in the air ceased, because diversity was necessary to potential, and potential was necessary to activity; i.e. the conversion to kinetic energy.[17]

In the following Chapters we will look more carefully at the implications of conservation and entropy. However, the tone of these implications will continue to be the rejection of purposefulness, which leads to the acceptance of mechanism.

Just as any other assumption, mechanism -- the theory of absolute physical order -- required supporting data before gaining wide acceptance in the scientific community. In this regard any data which showed that possible exceptions to mechanism could be accounted for was especially persuasive. Life appeared to be an exception. However, Darwin's theories of descent and Natural Selection suggested that life forms developed according to material laws. Human consciousness was a second possible exception. However, parallelism suggested that it could be explained through observing chemical reactions in the brain. Finally, the total activity of the universe itself was discovered to be subject to the physical laws of thermodynamics.

For science the chief implication of mechanism is that all occurrences in the universe are both predictable and explainable. Nothing is totally unique, and nothing is an

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[17] Jacques Monod gives a simple, straightforward account of entropy as it is understood by a modern biologist. Chance And Necessity. pp.185f.

exception to absolute order. Ultimately everything can be described as "blind" adherence to the material laws. Individual purposefulness is mere appearance. Furthermore, there is nothing to be said about the purpose of reality -- it simply is. There is no way to get behind the material laws to ask their meaning.

B. Mechanism In Philosophy

In the late nineteenth and early twentieth centuries, when moving from the area of science into the field of philosophy, the term "materialism" is used in place of mechanism. That is, philosophers tended to call men of science mechanists -- but others in their own field of philosophy, holding mechanist views, were often referred to as materialists.

Thus, for example, the term "spiritualism" might be used to mean the opposite of either mechanism or materialism. The following quotation from Bradley illustrates this: "The idea of spirit, we may say, is directly opposite to mechanism."[18]

Materialism in the middle to the late nineteenth century was the philosophic position which held that all activity can be explained by the potential already present within matter. This clearly makes it consistent with a physics which explains all motion in terms of potential and kinetic energy. It is opposed to any form of spiritualism which would posit an extra-material force working upon matter.[19] The three major

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[18]Bradley, F.H. Appearance And Reality. (London: George Allen & Unwin, Ltd., 1916). Sixth Impression. p.498.

[19]Naturalism is used by Ward as synonymous with materialism and mechanism. In his Gifford Lectures of 1896 he says,

forms of materialism were evolutionism, atomism, and secondary causality, or historical determinism.

The term evolution, which will be a significant term in this paper, was chiefly a philosophical concept prior to its establishment as a scientific fact by Darwin. Even as a pre-Darwinian philosophical concept it was an example of materialism, because evolution was understood as the gradual unfolding of what was already possible within matter. Ward illustrates this concept of evolution by a scroll being gradually unrolled to reveal more and more of the "already possible" text.[20]

Darwin's theory of evolution by Natural Selection was, as we saw, suited to a mechanistic interpretation, but undoubtedly the most influential statement of materialistic evolution is to be found in Herbert Spencer's First Principles.[21] An alternative understanding of evolution is that of "Epigenesis." Epigenesis is the position that evolution, even as a scientific fact, demonstrates that the development which occurs in an organism represents something more than the actualisation of the potentiality of matter. This concept will be discussed more fully in Chapter II.

"This naturalistic philosophy consists in the union of three fundamental theories: (1) the theory that nature is ultimately resolvable into a single vast mechanism; (2) the theory of evolution as the working of this mechanism; and (3) the theory of psychophysical parallelism or conscious automatism..." Naturalism And Agnosticism. (London: Adam and Charles Black, 1906). Third Edition. Vol. I, p.186.

[20]Ward. The Realm Of Ends. p.97.

[21]Spencer, Herbert. First Principles. (London: Williams And Norgate, 1870). Third Edition.

Aside from the materialistic interpretation of evolution it will be helpful if we comment on two other ways of expressing a belief in a materialistic philosophy. Atomism is what one might call the classic statement of materialism. The principal characteristic of all forms of atomism is the assumption that there exists an absolutely smallest material particle, which is not subject to further division. However, Ward says, "Thus, in spite of the etymological identity of atom and individual, pluralism has nothing in common with atomism beyond the bare fact that both recognise a many; for the atom is credited with no spontaneity and is completely determined from without."[22]

The third of the materialistic philosophies might well be described as historical determinism or secondary causality. This form of mechanism is illustrated by a position which assumes that "...beyond humanity and history, beyond, if you will, the whole realm of sentient life, Nature is there all the while, and there as no mere background but as the basis of the whole, the fundamental plasma which can only be shaped because it is itself determinate and orderly."[23]

In other words nature is assumed to be a mechanistic whole quite apart from any consideration of what man is able to know specifically about this whole. Furthermore, one might suggest that the concept of "ether", i.e. the medium or plasma in which activity occurs, a concept re-popularised in the

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[22]Ward. The Realm Of Ends. p.51.

[23]ibid. p.20.

nineteenth century, also comes under this form of mechanism.

To put the above in another way, extension is believed to be the only primary quality, and all other qualities are secondary. Bradley describes this form of mechanism by saying, "That doctrine, of course, holds that the extended can be actual, entirely apart from every other quality."[24]

Our discussion of materialistic philosophy would not be complete without mentioning the concepts of teleology and finalism. Scientific mechanism is essentially non-teleological. That is, it refuses to admit that the activity in the world is purposeful in any ultimate sense. The laws of nature are not working toward any observable goal. What may appear to be purposefulness in a particular situation is a totally "relative" factor.

Generally we might suppose that any philosophy which proposed a teleological position would not be mechanistic. However, Bergson points out that this is not the case with "finalism." Both finalism and mechanism proceed on the assumption of a pre-established order. Scientific mechanism has merely

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[24]Bradley. Appearance And Reality. p.17. Henri Bergson assigns the formation of this position to Kant: "...space would be a reality as solid as the sensations themselves, although of a different order. We owe the exact formulation of this latter conception to Kant: the theory which he works out in the Transcendental Aesthetic consists in endowing space with an existence independent of its content, in laying down as de jure separable what each of us separates de facto, and in refusing to regard extensity as an abstraction like the others. In this respect the Kantian conception of space differs less than is usually imagined from the popular belief. ("Popular belief" here refers to the concept of ether). Far from shaking our faith in the reality of space, Kant has shown what it actually means and has even justified it." Time And Free Will. trans., F.L. Pogson. (London: Swan Sonnenschein & Co., Lim., 1910). p.92.

eliminated the anthropomorphic, i.e. ontological, character of most finalism, and has gotten rid of the end pursued.[25]

Finalism could be well illustrated by the belief that in retrospect one can see the human species as representing the very organism which the entire evolutionary process was destined to create. At every stage in the process Natural Selection was oriented to preserving just those structures which would make for the highest possible life form -- man. In other words, the evolutionary stages demonstrate a teleological aspect implicit within the natural laws.[26] G. Gaylord Simpson, in his discussion of mechanism and finalism, suggests that the word "progress" be used as a more precise understanding of purpose.[27]

Each of our examples of materialistic philosophy, i.e. evolutionism, atomism, historical determinism, and finalism, are developments in philosophy that are associated with scientific mechanism. They all conclude that the key to understanding the material reality rests in seeing that universal order is the result of some abstract principle inherently incorporated by matter. This abstract principle is absolute

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[25]Bergson. Creative Evolution. pp.94-100.

[26]Hans Driesch makes a distinction between "statical teleology", and "dynamical teleology." Statical teleology he says may apply to a part of a machine, which has purposefulness only because it stands in a special relation to other single processes, and for no other reason. Dynamical teleology he says is characteristic only of "life." It is autonomic and does not result from a combination of other agents, but is elemental in itself. The Science And Philosophy Of Organism. Vol. II. pp.135-136.

[27]Simpson. The Meaning Of Evolution. p.241.

because it remains the same in every relation possible. As the absolute principle is innate to matter, men, who are themselves grounded in material reality, have no source of information about an absolute principle which is independent of material reality. Quite apart from what the physical sciences may have intended, the above philosophical positions are all formulations with a specific understanding of the term absolute.

C. Mechanism In Metaphysics

Writing in 1911, William McDougall makes a comment about his work which helps to capture the understanding of the term metaphysic for his day. He says, "Of course, if the term metaphysic be taken in the older sense as implying an inquiry into that which is not physical, the theme of this work is metaphysical; but that is a usage which is no longer accepted; metaphysic is now distinguished from empirical science by its aims and methods rather than by its subject-matter."[28]

One way to think of the aim of metaphysics is that it attempts to comprehend the universe as a whole.[29] And furthermore its aim is to achieve as precise a conception as possible.

If one accepts the above definition of the aim of metaphysics, this aim would appear to be totally satisfied by mechanism. Mechanism is a way of understanding the universe in terms of a single unifying principle. The laws of nature, functioning without exception, and applicable in all situations, are a very precise explanation of how the universe

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[28]McDougall, William. Body And Mind. "A History And A Defense Of Animism." (London: Methuen & Co., Ltd., 1911). p. xiv.

[29]Bradley. Appearance And Reality. p.1.

holds together.

As mechanism's explanation is wholly physical, the aim of metaphysics seems to be achieved without the need of a metaphysic. However, as we will see in Chapter II, where we consider the topic of "vitalism", there was substantial scientific evidence that "life" was an exception to the physical laws. Indeed, it is in an effort to account for life in the universe that McDougall developed his own theory of "Animism."

Before moving into the topic of vitalism, however, it is important to note an interesting connection between some vitalisms and the mechanism we have been discussing. In moving beyond the physical, animists or vitalists do not necessarily deny mechanism's belief in a universal order. Instead they may merely argue that the source of order is outside of the material realm, and is not innate to matter.

Therefore, the aims of some animisms and vitalisms differ from those of mechanism in that the former attempt to find the "source" of order, while the latter investigate the "phenomenon" of order. However, their subject matter -- the order of the universe -- is the same.

In speaking of the order of the universe, we are referring to the organisation of "activity." According to mechanism activity is inherently contained in matter, and is organised in terms of material structure. On the other hand, some animisms and vitalisms argue that the activity of living organisms is not organised according to the same plan as the activity of dead matter. If this latter contention is supported, then the two most likely conclusions are: (1) that matter represents one kind of activity and life another, or (2) that a

single source of activity, outside of matter, can account for the organisation of both matter and life.

The first option clearly suggests a dualism between physical and metaphysical activity. The second option supposes a single metaphysical source of activity. This single metaphysical source would be absolute because it unifies all reality on the basis of activity. As it would be contradictory to speak of a unity "outside" of the absolute principle, unity must take place within the principle of activity. Furthermore, given the fact that the metaphysical order is absolute, the physical order, which it makes possible, must be determined by the metaphysical order.

Based upon such reasoning McDougall, for example, says that material order reflects the divine or spiritual order. This spiritual order is not innate to matter but works upon matter. However, this merely amounts to saying that while activity is indeed more complex than mechanism allows, it is nevertheless ultimately deterministic because it is unified throughout.[30] Furthermore, if activity is ultimately ordered there is no place for such factors as freedom, uniqueness, novelty, creativeness and purpose.

The point is that metaphysics may have an understanding of the term absolute, which is very different from the implicit meaning of that term in materialism, and yet by its own use of the term absolute arrive at a determinism parallel to

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[30]Bergson, Henri. Time And Free Will. trans., F.L. Pogson. (London: Swan Sonnenschein & Co., Lim., 1910). pp.151-152.

materialistic determinism. It is in order to avoid determinism that a man like Bergson, as we will see in Chapter IV,prefers to remain somewhat of a dualist and not accept that matter and life are unified by a common source of activity.

CHAPTER II: Vitalism And Animism

Vitalism is the belief that the activity of organisms cannot be totally accounted for by a mechanistic theory, which holds that activity is innate to matter and is ordered according to the material structure. Instead vitalism holds that activity can be fully explained only by the introduction of some extra-material source. Under the general category of vitalist will come a wide variety of thinkers who hold very different positions. Nevertheless, the above definition of vitalism holds true for such diverse positions as those held by Bergson, Driesch, Ward and McDougall. However, when we get to the question of the nature of the vital activity, thinkers are widely separated.

In Chapter I we mentioned that the strengthening of the mechanistic position resulted from three areas of scientific achievement: (1) a mechanistic explanation for adaptation; (2) a mechanistic account of the nervous system; and, (3) the formulation of the Laws of Thermodynamics. We will therefore begin our study of vitalism by considering why leading vitalists attempted to call into question the conclusions which developed out of the above developments in science.

In the late nineteenth and early twentieth century the issue of vitalism was the issue of the "uniqueness of life." The chief problem was whether or not the phenomenon of the activity of life could be explained by a purely mechanistic formulation. Certain men, many of whom were students of the developing science of modern biology, said that life could

not be explained mechanistically.

A. Vitalism In Science

One of the most influential arguments for the interpretation of evolution as epigenesis, i.e. the position that evolution produces something beyond the potential already present in matter, was introduced by the German biologist Hans Driesch.[31] He presents three, from his point of view conclusive, arguments against the concept that a living organism is merely a machine.[32]

The first of the three proofs is based on discoveries that he made in the area of individual morphogenesis. The cells of certain life forms, in at least the second and third stages of cell division, were, he discovered, "harmonious-equipotential systems." This term means that, if the cells after their initial divisions are separated, each new cell demonstrates the potential of developing into a full organism (of sometimes reduced size). Driesch says,

> Therefore, there can be neither any sort of a machine nor any sort of causality based upon constellation underlying the differentiation of harmonious-equipotential systems.
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> For a machine, typical with regard to the three chief dimensions of space, cannot remain itself if

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[31]It is significant to the general theme of the development of biology as an independent science that Hans Driesch was the first biologist to be invited to present the Gifford Lectures at the University of St. Andrews (1907-1908).

[32]Driesch generally uses the word "machine" in a chemical sense: "A machine" is a typical configuration of physical and chemical constituents, by the acting of which a typical effect is attained.

> you remove parts of it or if you rearrange its parts at will.[33]

As we have already indicated, vitalism supposes that some extra-material source of activity must account for the activity of organisms. Driesch chooses to call this a force or an "entelechy."[34] The term entelechy is widely used by vitalists who look to Driesch for support.

The fact of heredity is Driesch's second proof of vitalism. Perhaps from a modern point of view, it would be clearer to call this a proof based upon the process of sexual reproduction. Indeed, most of the modern information about genetic heredity was totally unknown to Driesch. However, the point concerning reproduction is that it comes about by cell division. Nevertheless, the result of this division is a whole organism essentially like the parent organisms. No machine, says Driesch, is able to go through a series of divisions and remain what it is.[35]

Driesch's third proof is a refutation of the purely mechanistic functioning of the nervous system. In the widest sense Driesch argues that the response of individuals does not directly correspond to a given stimulus. For example, Driesch argues that no machine is capable of spontaneous regeneration of organs; nor can a machine respond with anything similar to the development of antibodies by the blood of living organisms.

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[33] Driesch. Philosophy Of Organism. Vol. I. p.141.

[34] ibid. p.144.

[35] ibid. pp.240-241.

To account for the abilities of organisms to make unique responses to stimuli Driesch posits the existence of forces which he names "psychoids."[36]

While these three proofs are central to the biological refutation of the traditional understanding of evolution as an "unfolding", we have not yet made any direct mention of Darwin's theory of adaptation by Natural Selection. One reason is that Driesch holds that the science of his day did not know enough about adaptation to use it as a proof either for or against vitalism. He believed that accurate knowledge was limited in biology to some information about individual morphogenesis. Of adaptation he therefore says, "Morphological adaptation is no part of individual morphogenesis proper, but occurs at the end of it; at least it never occurs previous to the full individual life of an organism, previous to its true functional life; for it relates to the functions of the complete organism."[37]

Henri Bergson in Creative Evolution makes two additional observations concerning biology's ignorance about how adaptation occurs. First he says that a mechanistic adaptation should produce increasingly perfect harmony among organisms. However, this is not the case. Adaptation appears to be something which promotes individuality.[38]

Bergson's second observation is that many biologists of his day continued to interpret evolution as if the Aristotelian

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[36]Driesch. Philosophy Of Organism. Vol. II. p.82

[37]Driesch. Philosophy Of Organism. Vol. I. p.168.

[38]Bergson. Creative Evolution. p.53.

hypothesis, that vegetative, instinctive and rational life represent three successive degrees of development, was supported by modern evidence. Bergson argues that the difference among these three is not "a difference of intensity, nor, more generally, of degree, but of kind."[39]

As the formulation of the conservation of energy and of entropy were believed to be the climactic achievement in the establishment of pure mechanism, the vitalists centered a great deal of attention upon the refutation of their formulation. We might begin with Driesch's explanation of how entelechy avoids entropy. This is the best way to express Driesch's opinion as he, like certain other thinkers, does not say that entropy is wrong; rather that it is not adequate to include all reality, and is thus avoided by life.

Driesch says that entropy involves merely an explanation appropriate to energy. However, entelechy is not a form of energy. Therefore, it cannot violate the principle of the conservation of energy.[40]

The justification for this position becomes clearer if we introduce still another way of interpreting the implications of entropy. Namely, entropy implies the impossibility of an increase in the degree of manifoldness, i.e. of complexity or order.[41] Manifoldness implies that there is a

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[39] Bergson. Creative Evolution. p.142.

[40] Driesch, Hans. The Problem Of Individuality. (London: Macmillan and Co., Ltd., 1914). pp.35-36.

[41] ibid. pp.51-52.

corresponding increase in potential. For example, in the case of the harmonious-equipotential system, described by Driesch, each cell appears to have the potential to form a total organism. The more complex the organism becomes, the greater the corresponding potential within each cell. Therefore, life with its increasingly complex organisation would appear to be creating energy.

However, in order to avoid saying this Driesch suggests that entelechy is in fact non-energetic. Therefore, instead of an increase in potential energy, he believes that something new has been introduced.

Bergson's position on entropy is characteristic of his essentially dualistic view of matter and life. Entropy he suggests applies to inert matter but not to life. Or in his own words: "In vital activity we see, then, that which subsists of the direct movement in the inverted movement, a reality which is making itself in a reality which is unmaking itself."[42]

What is characteristic of life, says Bergson, is its being able to accumulate energy and to redirect it without expending energy. He says, "...Life has a tendency to accumulate in a reservoir, as do especially the green parts of vegetables, with a view to an instantaneous effective discharge, like that which an animal brings about..."[43] In this sense entropy is not necessarily overcome, but it is clearly retarded. Such activity, however, led Bergson to adopt vitalism, because he sees in life a conscious effort to overcome

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[42]Bergson. Creative Evolution. p.261.

[43]ibid. p.260.

the general laws of inert matter.

Finally we will look at Ward's objections to entropy. Ward points out that thermodynamics cannot answer the question, why its prediction of potential energy becoming unavailable has not already happened? He says,

> On these assumptions that energy can only last a finite time, and the ratio of finite time to infinite duration is strictly infinitesimal. The chances then are infinity to one in favour of the universe being at any given moment 'played out.'[44]

B. Vitalism In Philosophy

While it is true that the arguments in favour of vitalism did not cause scientists to flock into the camp, these arguments nevertheless did pose some significant problems, especially interesting to philosophy. Therefore, we may well review some of the implications of vitalism as a philosophical position, as it was differently presented by certain major exponents.

Bergson suggests that the source of vital activity, his so-called "élan Vital," may be a new kind of energy.[45] Bergson points out that Leibniz developed his philosophy on the basis of kinetic energy alone. Only later was the concept of potential energy added as a necessary adjunct. Therefore, one might suppose a new kind of energy which is necessary in order to account for the activity of life. This necessary élan, says Bergson, is transmitted by heredity in the same way as the

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[44]Ward. Naturalism And Agnosticism. Vol. I. p.171.

[45]Bergson. Time And Free Will. pp.151-152.

other characteristics of the organism.[46]

Essentially, says Bergson, we may think of the élan as a burst of pure energy. The source of this pure energy one may wish to call God. Matter represents the decay of this pure potential.

Driesch, as we have already mentioned, thinks of his entelechy not as a new kind of energy, but rather as a non-energetic force. Driesch persists in calling entelechy "It." It is eternal. It is neither matter nor energy. It is not subject to space or time. In short, he says, It is the teleological factor within the universe.[47] It is apparently an eternal factor built into reality.

For McDougall it is appropriate to call the vital force "mind" rather than "spirit." Mind, says McDougall, is a non-physical reality. It acts upon matter, and is not in any way the result of the material world. By this statement he rejects Huxley's concept of "epiphenomenalism," in which the mind is believed to be somehow dependent for its existence on matter.[48] Furthermore, if one prefers, as McDougall himself sometimes does, the word "soul" may be used in place of mind.[49]

Haldane distinguishes two chief modes of vitalism. In general he suggests that vitalism proper assumes that living organisms are guided by some non-physical factor which is said

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[46] Bergson. Creative Evolution. p.244.

[47] Driesch. Philosophy Of Organism. Vol. II. p.205.

[48] McDougall. Body And Mind. p.149.

[49] ibid. p.299.

to act blindly and necessarily. The animists also assume the non-physical factor, but they tend to identify it with the soul which acts somehow sub-consciously.[50]

C. Vitalism In Metaphysics

It is perhaps most common to call the post-Darwinian vitalism, which we have been discussing, Neo-Vitalism. At least this is the designation that was assigned to it in the early twentieth century. The most significant characteristic of neo-vitalism, in terms of metaphysics, was that it profoundly reopened the issue of individuality. In a purely mechanistic system certain concepts such as individuality, novelty, freedom, creativeness, purpose and becoming have no really ultimate meaning. In a vitalistic system, however, this is not the case.

Vitalism, as we have been discussing it, is necessarily pluralistic in many respects. Such pluralism, so the vitalists argue, is necessary in order to fulfill the task of metaphysics; namely, to comprehend the universe in its totality. Of course, the chief dilemma for pluralism is how to also account for the apparent unity admitting diversity. The effort to do just this is the second characteristic of neo-vitalism. Chapter IV will deal with vitalists' attempts to reconcile unity and diversity. However, at present we will only give an account of the pluralistic aspects of vitalism.

Undoubtedly the most comprehensive statement concerning

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[50]Haldane, J.S. Mechanism, Life And Personality. "An Examination Of The Mechanistic Theory Of Life And Mind." (London: John Murray, 1913). pp.17-18.

pluralism during this period was Ward's Pluralism And Theism. Therefore, we will begin with his work.

It should be quite clear that the theory of mechanism is the theory of an order, or of laws, that predetermines the entire universe. These laws can be discovered by science. However, Ward points out that there are unique acts and deeds that have their origin in the individual centers of experience, i.e. in individual minds.[51] For example, Ward argues that value is not intrinsic to nature, but value results from the individual's attitudes and interests.[52] Likewise, such physical concepts as atom or monad imply some sense of plurality.

It is most especially in the field of biology that Ward sees proof of individuality. For example, among life forms there is real evidence of diversity. Plants, the lower animals, and man -- in their presently existing forms -- are not products of a single line of development, but are cases of actual diversity; of a true multiplicity of forms. Adaptation also appears to Ward to act according to the particular organism, rather than universally. Finally, the fact that life seems to violate the concept of entropy implies a real diversity. That is, the violation of entropy indicates that mechanistic laws do not apply to life.[53]

To put this last point in other terms, the mechanical world moves man along with all creation toward a neutral world

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[51] Ward. The Realm Of Ends or Pluralism And Theism. p.18.

[52] ibid.

[53] ibid. p.9.

or state, devoid of activity. However, life appears to contradict this point of view. Indeed life is a movement toward an increasingly greater order of complexity.

Ward believes that individualisation is the chief fact of history. Individuality, he felt, is more and more apparent as one moves to the higher life forms.[54] Furthermore, Ward says that progress can only be defined as an interaction of a plurality of individuals.

> As a necessary consequence of the interaction of a plurality of individuals, intent on self betterment as well as self-conservation, there should be a general tendency to diminish the mere contingency of the world and to replace it by a definite progression. And this, so far as our experience goes, we find to be in fact the case.[55]

Bergson in his Time And Free Will uses a more physiological approach for the proof of individuality. He points to a large number of experiments which disprove parallelism. That is, he declares that mental states are not totally predictable. In his book Creative Evolution he returns to this theme saying,

> For to foresee consists of projecting into the future what has been perceived in the past, or of imagining for a later time a new grouping, in a new order, of elements already perceived. But that which has never been perceived, and which is at the same time simple, is necessarily unforeseeable.[56]

But what turns out to be one of his most powerful arguments for pluralism is Bergson's use of the concept "time." Generally philosophers of his day believed that one of Bergson's greatest achievements was his particular introduction

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[54] ibid. p.18.

[55] ibid. p.97.

[56] Bergson. Creative Evolution. pp.6-7.

of the concept of time into philosophy. Time, he says, is a reality accepted by physical science. Yet the very concept of time itself is a refutation of a mechanistic explanation of the universe. For he points out that if all reality is programmed, as finalism supposes, time is a useless concept.[57]

Bergson says that, in establishing their mathematical (mechanical) laws, scientists select a hypothetical point. Based upon this point they make measurements and construct their theories. Time in the sense of "duration," however, cannot be explained by a single point. Rather, a series of points is necessary in order to account for the movement of time. That time does so move, and that this movement has meaning, can be proven by the simple fact that a man grows older.

For the fact of evolution to have taken place, says Bergson, one must assume a persistence of the past into the present. That is, there must be a duration, a hyphen, a connecting link between points.[58] Thus in accepting time we must accept a plurality.

In fact, Bergson has introduced the hypothesis that in order for activity to take place one must assume a multiplicity. He illustrates his point primarily in terms of life. Indeed, we must remember that Bergson associates activity solely with life. Entropy, inactivity, is the characteristic state of matter.

Bergson further holds that, in life forms, feelings are the root of their activity. However, a feeling, says Bergson,

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[57] *ibid.* p.41.

[58] *ibid.* p.24.

is not a unity but a complexity. In Time And Free Will Bergson points out that science has proven that the intensity of a feeling is directly related to the multiplicity of simple states, which consciousness dimly discerns within the total feeling.[59] For example, the intensity of a pain is determined by the number of pain-sensitive nerves affected. There is no other way of explaining intensity within conscious states. Thus consciousness of itself demands the reality of a multiplicity.

F.H. Bradley agrees that the fact of consciousness demands a pluralism. He says,

> I still insist that for thought what is not relative is nothing. But I urge, on the other hand, that nothings cannot be related, and that to turn qualities in relation into mere relations is impossible.[60]

Bradley also picks up the often repeated theme that change makes no sense apart from diversity. He says, "Thus to the religious mind, everything which is good is but the bringing to light of God's perfection and glory; and yet to the same religious mind nowhere is God more really present than in that will for good which in myself and others makes changes in the world."[61]

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[59]Bergson. Time And Free Will. pp.31-32.

[60]Bradley. Appearance And Reality. p.30. One must be careful not to confuse the use of the term relativism in Bradley's works with the modern concept of "relativity." The point of relativism is that the cognitive process is not to be understood simply as a machine. Rather, it must be the result of a multiplicity within objective reality. In Chapter III we will consider Bradley's problem of how the universality of relationships appears to conflict with relativism.

[61]Bradley, F.H. Essays On Truth And Reality. (Oxford: The Clarendon Press, 1914). pp.105-106.

From a scientific viewpoint, vitalism suggests that the phenomenon of the activity of life is an exception to the principle that all activity is organised in terms of material structure. This means that the absoluteness of the physical laws cannot be maintained. Although there was a strong tendency among many vitalists to accept that the physical laws were absolute when applied only to "dead" matter.

In the hands of metaphysics vitalistic conclusions suggested that life was unlike matter, in that only the former demonstrated "true" individuality or multiplicity. The concept of true individuality includes the principle that the activity of entities is not determined. Materialism demonstrated that the activity of particles of matter was determined by their structures. In other words the organisation of their activity was, so to speak, built-in. However, as we have just seen, material structure did not appear to fully account for the activity of living organisms. Pushed to an extreme, vitalism could be used to support the rejection of any concept of absolute principles, and in favour of an ultimate pluralism.

The thinkers whomwe will be considering in the next several Chapters are not prepared to ignore the implications of either mechanism or vitalism. On the one hand they will feel it necessary to speak to mechanism's conclusion that some absolute principle orders or unifies all reality. On the other hand they will attempt to confront the issue of multiplicity being necessary to the activity of life. The problem, therefore, will be to formulate a cosmology in which both order and diversity -- unity and multiplicity -- have a place.

Of course, we are especially interested in looking at how

the term absolute is used and understood. As we said earlier, the term absolute implies that something has an inner necessity which remains the same in all relations possible. Vitalism has already opened the point that physics' abstract principle cannot be absolute, as it is not valid in relation to life.

The apparent contradictions that life poses, for the establishment of a comprehension of the universe as a whole, may not be a direct concern for the biological sciences. However, it is a concern for a metaphysics, which does seek comprehensiveness. Metaphysics, therefore, must either accept some form of pluralism, or discount vitalistic data, or formulate some principle of activity that by inner necessity is the same in relation to both matter and life; this principle of activity would thus become absolute. It is in large part the effort within metaphysics to determine a reference for the term absolute, with regard to the apparently conflicting data coming from the modern sciences, that causes the concept of process to begin to take shape.

CHAPTER III: F.H. Bradley's Absolutism

In one sense F.H. Bradley's work represents a strange place to begin a discussion of whether the factors of unity and diversity can be reconciled within either materialism or vitalism. His position is that neither system answers the dilemma. Indeed he holds that the solution can only be reached on a purely metaphysical level. On the other hand, he does admit that both systems have specific insights which agree with metaphysics.

Bradley's book Appearance And Reality was one of the first to make clear that the issues between materialism and vitalism point to a central problem for metaphysics. In the process of establishing his position, he so clearly illustrates the factors involved that this, rather than his ultimate conclusions, makes it appropriate for us to begin with him.

The physical world, said Bradley, "appears" to us as a multiplicity -- a world of many values in which no value seems to be able to involve all the rest.[62] Yet we do not comprehend the world as simply piecemeal or by fragments, but somehow as a whole.[63]

However, like an exponent of mechanism, Bradley believes that whatever unifies the cosmos must somehow be absolute. Yet he cannot see how materialism justifies its belief that it

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[62] ibid. pp.6-7.

[63] Bradley. Appearance And Reality. p.30.

can explain this unity or order by a physical principle. Thus he says that the explication of the absolute order is a topic only for metaphysics.

Bradley uses many examples of the inadequacy of attempts by materialists to discover the cosmic principle of unity within the physical laws. For example, he points out that the concept of time, which was often credited as proving unity, was in fact not able to do so. To illustrate his point he looks to Bergson's discussions of time.

According to Bradley's understanding of Bergson, time is common only to life and actually implies the existence of "mind." It is within the mind, as we will see, that time does provide unity for Bergson. This means that time is relative to mind. And says Bradley, what we are looking for in the principle of unity is something which relates -- not a relationship. Time is a mere relationship, argues Bradley, used by materialism as that which relates.

The Absolute for Bradley is that which relates, but in itself is free from relationships. Bradley's point that the Absolute is not capable of relating dates to Hegel's treatment of the Absolute, and this issue becomes a central topic in Process philosophies.

Space, the theory of extension, is another common materialists' proof of unity. However, according to Bradley, space also depends upon relationships, and therefore cannot be the principle of relatedness.

Not only did he feel that the materialists were unable to account for unity, but he also believed that religion failed to prove unity metaphysically -- although the spiritual level

was where unity should have been demonstrated. In his treatment of the "God of Religion" Bradley is especially careful to point out that its God cannot be understood as the Absolute. The God of religion, says Bradley, is personal. He has relationships. Therefore, this God can only be an appearance of the Absolute, and not the Absolute itself.[64]

Nevertheless, the fact of unity remains a reality, quite apart from the situation that we have only been able to account for appearances of it. Bradley concludes, therefore, that what we must say is that unity is nothing other than an experience. "It will hence be a single all-inclusive experience, which embraces every partial diversity in concord."[65]

At this point the way is opened for another understanding of the term absolute. It does not in Bradley's work refer to an abstract physical principle. Instead the term refers to an actual concrete unity of the complexities, and even contradictions, of reality.

This use of the term absolute is validated by experience. Experience itself is a whole; yet it is composed of unresolvable contradictions. However, says Bradley, if these contradictions remain unresolvable, then there could be no permanence. And permanence is demanded because there is change. Bradley points out,

I do not say that this demand is consistent, and,

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[64] ibid. p.448.

[65] ibid. p.147. Whitehead refers to Bradley in both Process And Reality, and also in Adventures Of Ideas. In particular Whitehead credits Bradley with being an important reference for his own understanding and use of the concepts feeling and experience.

> on the contrary, I wish to emphasise the point that it is not so. It is inconsistent, and yet it is none the less essential. And I urge that therefore change desires to pass beyond simple change. It seeks to become a change which is somehow consistent with permanence.[66]

Bradley admits to change and diversity, and he says that the evolution of life, for example, demonstrates them. Here of course he would be in agreement with the vitalists. Yet he says, that vitalism, when it accounts for unity at all, continues to depend upon the material as the ground of permanence or unity, and we have already been shown that such dependence cannot be supported.

Neither mechanism's call for unity nor vitalism's support for plurality is wrong -- but neither system can account for both. According to Bradley, therefore, a unified reality cannot be described by any form of materialism or vitalism. According to Bradley we are so limited to appearances that we cannot be sure of a difference between the organic and the inorganic. Furthermore, even to assert that matter came before mind is beyond us. Nature, says Bradley, as a general category, is itself appearance. Bradley's Absolute is beyond nature; that is, it is totally metaphysical.

Later we will see more clearly the value of many of Bradley's observations for Process thought. However, we may next move to his discussion of the concept of "the spiritual," which is his suggested solution to the demand for a single system including both unity and diversity.

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[66] ibid. p.207.

In talking about the spiritual it is important to keep in mind Bradley's distinction between religion and metaphysics. Religion for Bradley deals with relationships -- especially morals. The establishment of morals he admits is a valuable task for religion. However, metaphysics deals with what is absolute. And by its very nature the study of the Absolute is a topic which religion should avoid.

Religion, he says, is limited by being unable to deal with the Absolute, and it should recognise this limitation. He makes his position quite strongly by saying, "I can enter here no further on this matter than to express my opinion that to invade the region of philosophy is contrary to the interests of a sound morality or religion."[67]

As we have already said, an experience of wholeness is supposed to be reality. Yet argues Bradley, this experience is non-rational and it is not discovered in the world. Thus one must conclude that this reality enters the process of events.[68]

Bradley quickly admits that this theory makes all of our sensual experience illusory. Here is, in general, the greatest problem for his system the material world must be accepted as lacking ultimate reality; yet this very thing is what seems so contrary to our experience.

Again Bradley cannot fully accept the implication that our sensual experience is meaningless. He says that somehow our sense impressions must, although they are mere appearances, have meaning. Therefore, Bradley once more pushes the

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[67]Bradley. Essays On Truth And Reality. p.11.

[68]ibid. p.337.

problem into a metaphysical or spiritual realm. Somehow on the spiritual level he believes that the problem must find a resolution.

Bradley believes that he has eliminated the possibilities of solving the riddle of the ultimate truth of materialism or vitalism. For him the term absolute must be completely separated from the material world. Materialism was quite right about the term absolute referring to that which relates, but it could not include the metaphysical dimension within its absolute physical principle. Vitalism rightly saw a metaphysical dimension, but from this insight it inferred plurality at the cost of unity.

Generally, the philosophers of this period were unwilling to accept Bradley's conclusions. They believed that either vitalism or mechanism could be proven true, or that the two positions could somehow be reconciled without the introduction of a total denial of either the metaphysical or the physical. Bradley would make science and philosophy completely separate disciplines. But his associates, by and large, sought for some marriage of the two.

In Chapters IV and V we will be looking at some of the attempts to show that a predominately vitalistic position can account for the apparent unity in the cosmos. The attempts to make the essentially pluralistic vitalism capable of accounting for unity develop still further certain of the major aspects of a Process philosophy.

CHAPTER IV: Neo-Vitalism

Henri Bergson and Hans Driesch have within their positions a number of similarities. In part the reason for this is that both of their positions use the language of biology.

As we have already said, the biology of this period seemed to be presenting some substantial arguments, which could be documented by experimentation and research, against the mechanism of physics. However, biology was a very new modern science, and it was only in the first stages of becoming established as an independent discipline. Therefore, one must be sensitive to the relatively primitive state of the science as compared with early twentieth century physics, and certainly with the biology of today.

Indeed, from today's point of view most of the proofs for vitalism were totally negative. That is, the conclusions were chiefly the results of inadequate experimental techniques or inferior equipment. Vitalism was a possible explanation for what could not be proven experimentally in biology; but truly positive evidence for vitalism seemed woefully lacking.

Yet Bergson and Driesch were both vitalists, and it is unfair to assume that they were in fact satisfied completely with the experimental "proofs" for vitalism. The evidence for this is that they felt it necessary to formulate a vitalistic position, which would include an explanation for mechanism's success in establishing an absolute physical principle.

Their efforts resulted in what we will consider Process philosophy. It was the problem of making a place for the

concept of unity within vitalism that led Bergson and Driesch to Process conclusions. In Chapter V we will see that Ward, Hocking and McDougall also represent variations on this particular approach.

A. Henri Bergson's Élan Vital

In his Adventures Of Ideas Alfred North Whitehead says, "The point which is here relevant, is that the zest of human adventure presupposes for its material a scheme of things with a worth beyond any single occasion."[69] In spite of many particular differences between the Process thought of Whitehead and Bergson, the foregoing quotation captures extremely well an essential formulation introduced in great part by Bergson's writings. Bergson might use the word "state" instead of "occasion", but his point would be much the same. The real, as we know it, argues Bergson, appears to be made up of separate flashes that are independent of each other; yet value must be understood in terms of a continuity. He therefore tries to show that the vital principle, which is used to argue against mechanism in favour of true diversity, also provides the scheme of unity behind the diversity. Thus he hopes to answer the need for both unity and diversity within a single system.

The general answer to both of these demands is that activity, as a given, provides individuality and is the source of unity. Bergson expresses this by saying that action itself creates what men suppose to be the cause of action.[70]

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[69]Whitehead, Alfred North. Adventures Of Ideas. (Cambridge: The University Press, 1933). p.372.

[70]Bergson. Creative Evolution. p.161.

In other words, activity is composed of both plurality and unity. The name that he gives to activity is élan vital, which we have already mentioned. This élan enters into reality and it is part of it only because of life. It is unifying in that it is common to all life, but it is diverse in that it is not harmonious.[71]

Activity does not simply presuppose relationships. It is that which both relates and has relationships. The discussion of entropy clearly demonstrated this. When all activity ceases, diversity ceases. However, a single unified temperature was reached within the movement of molecules.

The fact that life is activity presupposes diversity and unity. Yet intellectually mechanism tried, according to Bergson, to explain unity by material forms and laws. Mechanists tried to make these laws absolute; thus eliminating the possibility of diversity.[72] However, what one experiences is a complementarity not a unity of forms. The unity of these complementary forms the intellect cannot solve.[73]

Unity cannot be explained by physical laws; thus it is not explained by the intellect through reference to the material. What does account for unity is our intuition. Our intuition, says Bergson, is of the common élan, which is not mechanistic.

Activity, because it demands true diversity, cannot be predetermined. Action is itself free and creative. It is

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[71] ibid. pp.53-54.

[72] ibid. p.160.

[73] ibid.

man's intellect which tries to impose forms upon action. Bergson says,

> ...the intellect lets what is <u>new</u> in each moment of history escape. It does not admit the unforeseeable. It rejects all creation.[74]

On the other hand, intuition takes us to the very depths of the reality of experience. In experience we discover pure duration. Duration is characterised by a past which swells into a present that is absolutely new.[75]

As yet we have not been told how the intellect arises as life participates in the élan. The intellect arises through heredity. We have already said that the élan vital is passed by heredity. The nature of this heredity is repetition, as well as modification. In each new generation characteristics are modified, but the repetition seems also to be essential to the physical order.[76]

Thus heredity, which is activity, is also characterised by individuality and unity. Its repetition is not mechanistic, as it is an activity implying diversity. However, in matter, where true activity is not present, repetition appears to be cause and effect. Seeing cause and effect in matter, one then expects to see cause and effect in the repetition of life. "One hypothesis only, therefore," says Bergson, "remains possible, namely, that the mathematical order is nothing positive, that it is in the form toward which a certain interruption

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[74] <u>ibid</u>. p.172. It is worthwhile to quote Whitehead on this point: "The factor of activity is what I have called 'creativity.' The initial situation with its creativity can be termed the initial phase of the new occasion. It can equally well be termed the 'actual world' relative to the occasion." <u>Adventures Of Ideas</u>. p.230.

[75] <u>ibid</u>. p.210 [76] <u>ibid</u>. p.244.

tends of itself, and that materiality consists precisely in an interruption of this kind."[77]

The first characteristic of Process philosophy, which supports vitalism, is that activity is held to be composed of both unity and diversity. Now we may observe the second characteristic; namely, the belief that activity requires the existence of what Bergson calls "mind." For it is only in mind that the two elements of activity are truly present. That is, only mind, or self-consciousness, is composed of both intellect and intuition. Furthermore, the special way in which activity is present in the mind is duration: that is, the movement of the past into the present.

The conclusion finally reached is that self-consciousness participates in creation. This, therefore, accounts for the new within activity. However, the potential for creativity is a given. The potential must have some source outside of the physical.

The problem which most men seemed to have with Bergson's metaphysics was with its strong dualistic implications. Mind and matter appear as categorically non-compatible. Mind is the source of all activity, and matter is entropic. Certain of the vitalistic Process thinkers are going to attempt to mediate this dualism, but it will remain a consistent problem.[78]

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[77] ibid. p.231.

[78] A.E. Taylor points out that the real advance made in physical science by the Theory Of Relativity is the understanding of the indivisibility of Space and Time. Bergson's separation of duration and extension, which leads to a dualism of mind and matter, seems unable to speak to the modern concept of relativity. A Commentary On Plato's Timaeus. (Oxford: The Clarendon Press, 1928). pp.689-691.

Little explicit reference has been made to the term absolute in our presentation of Bergson's position. This was intentional as, at this point, it is better for us to merely draw a few implicit conclusions. Bergson would agree with Bradley that the material laws are not absolute, and that unity cannot be accounted for by reference to them. The élan is not a material principle. Therefore, the best candidate for what is absolute is activity itself. However, this leads to the very dualism about which Bradley warned vitalists. Matter is excluded from activity under Bergson's view, and is therefore excluded from the absolute unity. Such dualism reaffirms that the function of the "absolute" is to provide unity, because to separate anything from the content of what is referred to as absolute, as Bergson does with matter, is to prohibit an inclusive system. In Chapter XII we will see that Bergson does have some specific things to say about the use of the term absolute, but here we only want to demonstrate the problem facing him with regard to the term.

William James, however, finds one formulation of Bergson's dualism important to his work; that is, the dualism of intellect and intuition. James in his A Pluralistic Universe applauds Bergson, because of what James calls the conclusive refutation of the intellect in favour of experience.[79] Indeed the emphasis upon experience will be a regular theme in Process thought.

B. Hans Driesch's Entelechy

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[79]James, William. A Pluralistic Universe. (London: Longmans, Green, And Co., 1909). pp.258-260.

In his "scientific" proofs of vitalism Driesch proposes that in order to explain life two non-energetic factors must be active -- entelechy and psychoid. Psychoids are similar to what Bergson would call minds, or what McDougall would call souls. That is, the psychoids function in directing the action of the organism. However, in speaking more philosophically Driesch tends to use the term entelechy to include psychoids, which procedure we will now follow.

Like Bergson, Driesch understands that the vital force, or source of activity, must somehow be consistent with unity and diversity. However, he realises the logical problem in suggesting that entelechy is something which can remain whole in spite of its division into parts. Thus he suggests that one can simply say that the wholeness of entelechy is not effected by the diversity observed within the division of a given organic body.[80]

This suggestion clearly hints at what could become the dualistic problem faced by Bergson. From Driesch's position one must assume that entelechy itself is somehow one thing, and its manifestation within an organism is another. This must surely mean that the medium in which it is manifested, i.e. the matter of the organism, is somehow distinct from entelechy.

However, in an attempt to resolve dualism Driesch introduces his concept of "becoming." He says, "The <u>definition</u> -- and the <u>only</u> strict definition -- of the concept of Nature is,

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[80]Driesch. <u>Philosophy Of Organism</u>. Vol. II., p.258.

that Nature is a something which satisfies the postulates of a rational theory of becoming, and which behaves at the same time as if it were independent and self-persistent in itself." 81

Here is a decisive difference from Bergson's position. Nature, which for Driesch is the matter-energy reality, shares becoming with entelechy. For Bergson matter is devolution, but Driesch suggests that all reality participates in becoming. One problem, of course, is that Driesch tends to eliminate the possibility of explaining such obvious biological phenomena as regressions.

Granted, Driesch has already denounced entropy as an absolute fact; but his system then ignores all other regressions; it only implies a necessary progression. The problem of how to deal with regression will be a source of real difficulty for Process thinkers, who attempt to generally apply what amounts to a theory of continuous progress.

Perhaps this issue will be clearer if we look closely at what Driesch means by his concept of becoming. Interestingly, his chief illustration of becoming is one used by Bergson -- memory: memory which is understood as the constant movement of the past into the present.

Bergson says that memory is a present unity formed by a past plurality of events. Thus for memory events form an organised whole. This organisation is the result of memory's participation in intuition, and it is not an aspect of the

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[81] Driesch. The Problem Of Individuality. p.45.

material world given to memory, although the intellect would try to convince us that the latter is the case. The material world, according to Bergson, lacks activity, i.e. either unity or diversity. Thus the organisation of memory is always more than the events which seem to compose it.

Driesch, on the other hand, holds that the form taken by memory is in fact a legitimate model for nature. "In other words," he says, "with regard to Nature the concepts of substance and causality have a meaning; with regard to Nature a rational theory of causality is possible."[82]

With regard to nature, Driesch says, one can pick out a particular It which endures, and connect the changes that occur in that It. Likewise within memory there is that which endures as well as changes. A natural system according to Driesch can increase in complexity, i.e. manifoldness, and yet retain an essential identity. His classic example is the "organism."

In this sense all of nature is more than a mere sum of elementary concepts. Natural systems do demonstrate a manifoldness not unlike that of Bergson's "memory." It is this manifoldness -- this category of wholeness -- which Driesch would call entelechy. However, he insists that entelechy is something which must be understood as coming from outside of the natural order.

Kant's method of establishing his categories serves Driesch as an example of what he himself is doing. Just as Kant's categories were deduced, Driesch says, a new category of wholeness -- of entelechy -- must be deduced.[83]

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[82] ibid. p.46. [83] ibid. pp.55-56.

In his Philosophy Of Organism Driesch refers to the fact of the "It" as being a "window into the absolute."[84] The discussion clearly indicates that Driesch thinks of entelechy as somehow absolute. In other words, he sees the source of becoming as absolute.

The model for this becoming is the organism. The organism which is not merely a mechanistic sum of elementary concepts, but a true manifold -- a complex unity. The dualistic nature of vitalism is avoided by excluding nothing from the concept of organism.

Later we will see that Whitehead also speaks of his cosmology as a "Philosophy of Organism." Indeed, this concept becomes a standard part of Process philosophies. However, the argument in favour of this concept will be carefully refined to eliminate more and more the possibilities of a dualistic interpretation.

Driesch's philosophy of organism, as we have said, still retains many of the aspects of Neo-Vitalism. Indeed, McDougall in his history of animism tends to class Driesch as a vitalist. By the time of Whitehead's major philosophical works, we will see that the term Vitalism, if applied to the Philosophy of Organism at all, must carry a somewhat new meaning with quite different implications.

What we are most interested in, however, is the point that Driesch's concept of entelechy, unlike Bergson's élan vital, applies to matter as well as life. Driesch has argued that activity as an organic principle, rather than as a physical

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[84]Driesch. Philosophy Of Organism. Vol. II. p.363.

principle, includes all reality. However, if the organic principle, entelechy, is absolute, Driesch is never able to give a satisfactory answer to how entelechy as a whole remains unchanged by division into parts. Furthermore, as we have seen, entelechy is not the same as the matter-energy reality, but it merely shares becoming with that reality. Clearly this means that entelechy and the matter-energy reality have aspects outside of their common becoming. Therefore, dualism is not completely avoided. Of course it makes sense to say that matter and life have something in common, but this will not account for an overall unity of reality.

Thus we must conclude that here neither Bergson nor Driesch were able to show that vitalism could explain absolute cosmic unity, while allowing for diversity. On the other hand, they have shown that the concept of cosmic unity may not be nearly as simple as materialism suggested. What was long clear to philosophy, now became apparent in the field of science; namely, that the implications of absolute unity are not easily reconciled to a demand for a concept of true diversity.

On the positive side, their concept that the existence of activity, which is so much taken for granted by physical sciences, is itself difficult to reconcile with the implications of materialism will grow in importance as we continue our survey of Process. Physics was so concerned to show that the organisation of activity followed absolute physical laws that it neglected to notice that, as activity never occurred apart from diversity, it could not be innate to matter. Matter of itself lacks true diversity -- and Bradley even said that it lacked unity. If not inherently within matter,

activity must have another source. Both Bergson and Driesch have suggested that this source is some sort of interaction between unity and diversity. Driesch says that all organisms are characterised by such an interaction. Thus he further suggests that as a whole the universe should be thought of as an organism. This organism would be absolute in the sense that it contains all reality in itself. Thus we are here reminded of Bradley's use of the term absolute. However, as we saw, Driesch does not succeed in fully establishing his formulation.

CHAPTER V: Spiritual Evolutionism

As we have already suggested, vitalistic systems are teleological. That is, they characterise activity in individual organisms as having purposefulness, i.e. activity is not totally predetermined by the material structure. Formulations of this concept, as we have seen, led both Bergson and Driesch into a pluralism -- in at least the sense of dualism.

It is at this point that the thought of men such as Ward and Hocking makes a new contribution. While they do not finally resolve the dualistic implications of vitalism, they move much further toward explaining Driesch's dilemma of how the vital force can remain a whole in spite of its division into parts. Using Bradley's understanding of the term absolute, as referring to something which unifies all reality by containing it, they will attempt to show that the nature of an absolute cosmic unity is consistent with the relative independence of the parts of the unity. Furthermore, they generally adopt Driesch's idea of an organic model to illustrate the absolute metaphysical unity.

A. James Ward's Individualisation

For Bradley all reality is a mystery, and for Bergson matter remains somewhat of a mystery. Ward says that the spiritualistic interpretation eliminates the concept that knowledge of nature is in any sense an inexplicable mystery

subject to specific errors.[85]

By the term "spiritual" Ward means a unity or harmony which results from increasing individuality.[86] The movement toward harmony, according to Ward, is the only way in which pluralism can account for the reality of unity. Human history is for Ward the chief example of what he is suggesting.

Ward calls humanity "the spiritual society."[87] Man is more truly an individual than any other organism. Yet the level of his social organisation is also greater. This situation Ward says is progressive, because it allows for the highest possible level of self-betterment.

Organisms that lack social organisation tend to be less successful, and likewise organisms which are highly organised, but whose members lack individuality (for example an ant colony), tend not to progress. Therefore, mankind represents a progress beyond that of life forms which lack organisation or which are statically organised.

However, one might ask whether the characteristic nature of spiritual society could not have been hit upon by accident or chance. Ward would answer that indeed it was not. "The principle of continuity indeed almost forces us to posit

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[85]Ward. The Realm Of Ends or Pluralism And Theism. p.1.

[86]This is very similar to the concept of spirit used by Teilhard de Chardin. For example, Teilhard says, "By spirit I mean 'the spirit of synthesis and sublimation,' in which is painfully concentrated, through endless attempts and setbacks, the potency of unity scattered through the universal multiple: spirit which is born within, as a function of matter." Christianity And Evolution. trans., René Hague. (London: Wm. Collins, 1971). pp.107-108. The above was taken from "Pantheism And Christianity," an unpublished lecture of 1923.

[87]Ward. The Realm Of Ends. p.387.

higher orders of intelligence than our own; and the fact that we are able to control and modify the course of evolution suggests that if there are higher intelligences they can exercise this power in a still higher degree."[88]

Ward thus agrees that there is a vital force of some description. However, he insists that this force could not be described as merely an élan or entelechy. Rather, it must be characterised ontologically. That is it must have a concrete content, which has qualities consistent with those of creation.

He is now ready to address himself to Bradley's dilemma of what relates. As one may recall, Bradley insists that anything with relationships cannot be that which relates. Ward denies this. He insists that history proves that the greater the number of relationships the greater the individuality; that is, the greater the unity.

If we therefore posit an increasingly individualised unity, we must also say that the number of relationships within that unity increase. If we posit God, which Ward believes we must, we posit in fact an unlimited unity composed of unlimited relationships. Thus God is the absolute cosmic unity which makes possible creativity through individuals. Just as society is a unity which makes individualisation possible.

Such a position is consistent with both biology and psychology. However, Ward points out that it is also consistent with some of the classical teachings of theism.

For example, thinking of God as making individual creativity possible is a concept most capable of dealing with the

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[88] ibid. p.185.

problem of evil. A given individual can never be aware of all the factors relative to his choice of action. Therefore, he is faced by alternative choices. This means that the individual in order to accomplish a goal must proceed on the basis of trial and error. This error may be considered as the content of evil. Of course, such evil is inevitable, but its existence tends to support the fact of individuality.[89]

Thus Ward takes another step toward establishing the Process use of the term absolute. In the first place, like the other vitalists, he argues that absoluteness cannot be assigned to an abstract physical principle, because material structure cannot be the source of vital activity. Second, he understands that unless all activity has a single source, there is no basis for the unity of the cosmos. Third, he argues that activity must be absolute since its inner necessity is a process of individualisation. Fourth, whatever is absolute must have a concrete content; otherwise concrete reality would not be included in it, and cosmic unity could not be achieved. Fifth, he says that the source of activity (creativity) is an absolute cosmic source -- God --, whose inner necessity of movement toward harmony is not contrary to, but actually promotes, individualisation. Thus Ward, unlike Bergson (in his works ~~sighted~~ cited) and Driesch, gives activity an ontological basis, which Ward argues allows for "Becoming". Vitalistic pluralism results from the vital force not having a concrete ontological basis, because the source of activity there appears to rest in individual organisms.

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[89] ibid. p.356.

What makes Ward's position different from traditional theism is its strong monistic implications. The individualisation model supposes an absolute individual who harmonises all other individuals within itself. This being the case, we are back to the conclusion of materialism that absoluteness refers to the ultimate principle of unity. Ward has merely accounted for individual purposefulness by suggesting that the "absolute" has a purpose, and that it is not the purposeless absolute physical law of mechanism. Nevertheless, Ward's point that purpose cannot come out of purposelessness is an interesting one. It reaffirms philosophy's point that the Absolute must somehow include purpose, and Ward's understanding of individualisation in this regard is helpful. However, Ward does not explain the simple repetition in the material world if everything is ordered according to a purpose.

B. W.E. Hocking's The Mystical Experience

Hocking's work The Meaning Of God In Human Experience may be considered a work relevant to the level of development in Process thought that we are now considering. Hocking will accept the general position put forward by Ward, but will go a step further. He adds what might be called the "mystical vision" to a formulation quite similar to that of Ward's.

Hocking generally would accept a model of individualisation for the concept of becoming. That is, he believes in the reality of a cosmic unity, but he holds that is is a unity which does not destroy individuals -- rather it is one that provides for them.

Furthermore, he would accept Ward's position that man is involved in creativity. Hocking says,

> There are certainly some regions of reality which are unfinished. We are endowed with wills only because there are such regions, to which it is our whole occupation to give shape and character. In such regions the will-to-believe is justified, because it is no will-to-make-believe, but a veritable will to create the truth in which we believe.[90]

And what we must believe, says Hocking,is that all reality is one.[91] That is, we must believe that individual wills are a part of reality, but also that there is a reality beyond any particular will.

A cosmic will he argues is the only possible basis for optimism. To accept mere plurality leads to the pessimistic view that harmony can never really be achieved.

Thus Hocking would agree to call himself a monist. On the other hand, he is sympathetic to the position that becoming might be a basic part of reality. He does not exclude the possibility that cosmic unity may employ individual creativity as its working-character.[92]

Although sympathetic to what the particular form of monism, exemplified by Ward, is trying to say, he does not feel that it goes far enough. Rather he insists that monism can only be retained as meaningful in the following form:

> Monism begins to offer significant basis for our prospects when it seizes upon the actual processes of the world, and declares that they are all cases of One Process. In the nature of that One Process can be read something of the presumable outcome.[93]

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[90]Hocking, William Ernest. The Meaning Of God In Human Experience. (New Haven: Yale University Press, 1912). p.140.

[91]ibid. p.168. [92]ibid. pp.171-172.

[93]ibid. p.172.

The question of what the outcome will be for the possibility of becoming is really a new one. Ward's position that individualisation is the model for becoming never goes so far as to suggest clearly the final outcome. Ward simply says that the purpose is individualisation. However, does this mean that man as we now know him is the conclusion of evolution? Indeed this seems to be the implication of what Ward says.

Such a conclusion would not be very surprising. The idea that man is the pinnacle of evolution is a long-standing concept. Nevertheless, man has himself changed. Does Ward mean to tell us that man as he now is, is the end of the evolutionary process? This is perhaps the sort of question that disturbs Hocking. To look at man as he now is, even if we admit that he is an individual, is far from an optimistic hope.

Again we must refer to what Hocking says about optimism. "Optimism, I say, requires this degree of monism; -- belief in an individual Reality, not ourselves, which makes for rightness, and which actually accomplishes rightness when left to its own working."[94]

By this he suggests that talking about individualisation is not enough. Indeed we must be more specific about the nature of individuality. Certainly it is already clear that individuality is composed of both unity and diversity. Or to borrow a term applied by Morgan, it is Bi-polar.

However, for Hocking this individuality is an "Ideal" rather than a description of the present condition of man.

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[94] ibid. p.177.

As an Ideal, therefore, the absolute unity must be changeless in the sense that it always makes for right.

Man, says Hocking, must have a changeless Absolute. Otherwise man will fix upon "some concrete things as Changeless, something which ought to be forever revisable, and then we must either stagnate or break."[95] This error is what he assumes that materialism has made.

Hocking feels that the closest man comes to a true understanding of the concept individual is in the mystical experience. The mystical experience, he says, is one of "redemption of Solitude."[96] That is, the mystic by his conscious effort at super-subjectivity, of super-individualisation, reclaims a new increment for the general use.[97]

In his book Hocking speaks at considerable length in order to describe the mystical experience. Indeed he attempts to show the universal character of this experience through several of the world's major religious traditions.

In our discussions of epistemology we will include considerations about the nature of experience in general. However, for the moment, we will not spend time on the implications of this term. Rather we will conclude by observing how Hocking's formulation relates to vitalism.

When he says the 'individual' is an Ideal, we must not take this to mean that it is purely abstract. Indeed, worship, for example, has an object. The object of worship is the very whole to which all things relate. This is what makes relationship possible.[98]

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[95] ibid. p.187. [96] ibid. p.404. [97] ibid.

[98] ibid. p.405.

Hocking speaks of man as being in pursuit of this whole. That is, man is in pursuit of becoming fully individual in the sense that we have been describing that term. Thus we must conclude that the objective whole is an active force which somehow qualifies the material world. This is therefore adequate reason to place Hocking in an essentially vitalistic category.

C. Conclusions On Neo-Vitalism

In Chapters IV and V we have moved through several attempts to reconcile the concepts of unity and diversity in a single vitalistic formulation. A vitalistic formulation is one which argues that certain activities of life, especially purposive self-conscious activity, cannot be explained by materialism. In other words, vitalism argues that a material principle of unity cannot be absolute, as life demonstrates a plurality of forms inconsistent with material laws.

What has emerged from these discussions is that on the level of spirit or "mind" unity and diversity are complementary, while on the level of matter they are contradictory. The term absolute is therefore understood by vitalism as referring to a unity of diversities. With regard to Bergson's élan, Driesch's entelechy, Ward's individualisation, and Hocking's mystical experience the development of this formulation is clearly illustrated.

Behind each of the vitalistic positions lies the assumption that diversity and unity are imposed upon the material world by mind. Thus the reality of matter is not denied.

Yet none of these vitalists satisfactorily explains the fact of matter. If mind reflects absoluteness, matter appears to remain outside of it. Even a complex cosmic unity makes no sense if some aspect of reality is excluded. The use of the term absolute, as referring to a unity of all reality, therefore, makes the vitalistic formulations contradictory.

Of course, Ward and Hocking professed to be monists. That is, they must argue that matter is not excluded from the cosmic unity. Matter must somehow fit into God's plan of harmony. While it is difficult to see their supporting this contention, let us for a moment suppose it valid. The necessary implication of this is that plurality is not ultimately real. The absolute unity, as a final harmony, is just as deterministic as the material laws, understood as an already realised harmony. Although the former does have the advantage of accounting for the human experience of disunity, which is one of the aspects of consciousness that materialism cannot explain. Here it is the concept absolute that ultimately prevents true diversity.

Vitalism gives a world view that is more satisfying to self-conscious beings, but it is unable to convince all self-conscious beings that its viewpoint is the right one. Therefore, in Chapters VI and VII we will consider an alternative. This alternative is an attempt to account for unity and diversity within a materialistic system. That is, this will be an attempt to demonstrate that the materialistic understanding of the absoluteness of the physical laws can allow for the self-conscious experience of plurality.

Finally, we can suggest why the men here considered

should be called Process thinkers. The reason is that all have pointed to the fact that activity, even if only the activity of life, is composed of both unity and diversity.

CHAPTER VI: Neo-Mechanism

Vitalistic conclusions, based upon the unique aspects of life, implied, as we saw, that the very fact of activity, which required both unity and diversity, could not and was not being explained by physical laws. Activity could only be understood as a force working through or upon matter. The position of Neo-Mechanism, on the other hand, is that the material laws can in fact account for both the unity and diversity required by activity, if they are properly interpreted; and that vitalism is an unsupportable position. Finally the "new mechanism," as it is sometimes called, admits that other forms of mechanism have encouraged the rise of vitalism by inadequate explanation of the matter/energy relationship.

A. J.S. Haldane's Organic Theory

As we have already said, the vitalists tended to be dualists or monists. This poses a problem for Haldane. He begins by pointing out that all vitalists want to emphasise the fact of individuality, i.e. of true diversity. However, they all end up with some non-material force that in one way or another controls or animates the organism. This animating force may work blindly and be unconscious as in the case of the élan vital or entelechy; or, the force may be individual, so to speak, and work somehow subconsciously.[99]

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[99]Haldane, J.S. Mechanism, Life And Personality. pp.17-18. and cf. pp.28-29.

Haldane felt that in his day vitalism was accepted by only a small minority of scientists. However, this minority remained very vocal. The chief reason for this, he believes, was that much of the experimentation that could have supported mechanism was being inadequately carried out. Therefore, room was always being left for vitalistic conclusions.

Driesch's work is a particular target of Haldane's criticism. This is to be expected as it represented one of the most careful accounts of vitalism, and one that appeared to be supported by a weighty amount of experimental evidence.

Of Driesch's famous proof of entelechy based on the nature of cell division, Haldane says,

> Now there is no evidence at all that each cell, in growing and dividing in the one particular manner which constitutes normal development, is not determined by special physical and chemical stimuli peculiar to its position relatively to the other cells, and to the external environment. We do not yet know what these stimuli are; but probably no physiologist would doubt that they exist, and will be discovered when our methods are fine enough. Hence Driesch's argument for an independent vital force breaks down entirely.[100]

Here we actually have two objections to vitalism. First, it must assume that no activity is innate to matter; thus rejecting all the weighty evidence in favour of the dominate concept of matter. Second, most vitalistic proofs are based on the negative rather than the positive side of experimentation.

Finally Haldane says that all vitalism must contradict the Law of The Conservation of Energy. Here again this

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[100] *ibid*. p.27.

criticism is directed primarily at Driesch's suggestion that the vital force is non-energetic. However, says Haldane, any guidance or direction coming from outside of the material organism implies that energy is created.

Next Haldane moves to his objections to pure mechanism. The first objection is parallel to his objection to vitalism; namely, that mechanism is willing to make huge assumptions with no real evidence. For example, physics in establishing the laws of nature assumes the fact of cause and effect. Physiology translates the concept of cause and effect into that of stimulus and response. However, Haldane suggests that there was not enough real evidence to state plainly that physical or chemical cause and effect, and stimulus and response are the exact same thing.[101]

One reason that the above objection has some justification is that apparently the same stimulus may cause very different and unpredictable responses in different organisms, or even in the same organism. This clearly violates the usual understanding of cause and effect. Returning to Driesch's experiments, Haldane also admits that a usual understanding of mechanism would not account for some of the results which Driesch achieved.

Thus in place of either a theory of vitalism, or a theory of mechanism as pure cause and effect, Haldane proposes his own theory of "organism." Haldane points out that concepts such as matter, energy, mass and organism are all theories which attempt to give a unified conception of reality. In

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[101] ibid. pp.31-32.

particular Driesch's concept of organism is a model for relating matter and energy.

Driesch, however, insisted that the concept of organism be joined with a concept of a vital force -- entelechy. This entelechy was common to all aspects of life and matter, but it was not the same as the matter-energy reality. In other words, while he insisted that a concept of organism applied to all reality, certain aspects of the matter-energy reality were excluded from the vital force. Indeed he went on to say that the concept of organism could be used as a proof for the vital force. Haldane believed that a concept such as organism should have been formulated in order to avoid the idea that life can be described simply as so much energy passing through so much matter; but, organism as a concept is for him no more than a way of saying that matter and energy are an indivisible whole.[102] As a concept it does not point to a vital force.

Haldane suggests, therefore, that the concept of organism in itself is much richer than either of the concepts of mechanistic causality or vital force. The concept of organism <u>is</u> able to include all of reality.[103]

His suggestion that the concept of organism describes the indivisibleness of matter and energy is an important introduction to Process thought. Clearly, as understood by Haldane, it does away with many of the problems of dualism. And it also suggests a new interpretation of evolution:

> Evolution, therefore, takes on a very different significance. In tracing life back and back towards what appears at first to be the inorganic

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[102] <u>ibid</u>. p.95. [103] <u>ibid</u>. pp.98-99.

> we are not seeking to reduce the organic to the inorganic, but the inorganic to the organic.[104]

Haldane also takes very seriously the suggestions of men like Ward and Hocking who say that individual is a higher concept than organism. Therefore, after redefining organism, Haldane goes ahead to say that "conscious organism" -- person -- is a concept higher than organism. All reality is included under the term organism, but not all organisms are conscious.[105]

Haldane prefers the term "person" to individual. He says that philosophy shows that the central factor of the universe is a personality which includes within itself the whole universe. We will fully discuss the term "personality" later. However, at this point a brief distinction between individuality and personality in this context is necessary. Individuality is the unique character of an entity which exists independently of any relationships. Personality is the aspect of an entity which exists because of relationships. Therefore, Haldane is suggesting that the essential principle of reality is relatedness. In particular reality is a relatedness of matter and energy.

Matter cannot exist apart from energy, and energy cannot exist apart from matter. This position disagrees with vitalism because it denies that a force directs matter, while matter in no way determines the force. On the other hand it denies pure mechanism, which holds that cause and effect is

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[104] *ibid*. p.100. [105] *ibid*. p.106 and cf. p.133.

an adequate description of activity.

From the point of view of spiritualistic evolutionism this position is mechanistic because of its acceptance of matter as an aspect of the source of activity. From the point of view of vitalism in general it is mechanistic because it assumes that the ultimate nature of relationships between matter and energy are predetermined. That is, it assumes that the factor of universal personality depends upon specific relationships. These relationships are not as simple as either pure mechanism or vitalism suppose, but they can in theory be spelled-out. Organism is the model to be used in explicating these relationships.

Finally Haldane's position implies a meaning for the term absolute. The term refers to the universal principle of personality, which is a unity of specific relationships. That is, the apparently independent activities of living organisms are the result of laws of relationship inherently in the organisms. Although these relationships are more complex than the pure causal relationships of dead matter.

B. Bernardino Varisco's Concept Of Being

Varisco in his book The Great Problems says that this is his first major work following his conversion from Positivism to what he calls "Practical Philosophy."[106] Initially Varisco's metaphysical formulation sounds very much like Bergson's. To begin with he divided the mind into two categories similar to Bergson's intellect and intuition. In

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[106]Varisco, Bernardino. The Great Problems. trans., R.C. Lodge. (London: George Allen and Company, Ltd., 1914). Introduction.

place of intellect he uses the term consciousness, which is composed of fragmentary perspectives. Instead of intuition he uses the term subconsciousness, whose content is a complex unity similar to Bergson's duration. Also like Bergson, Varisco says that this unity is a neutral potential of pure activity. Of course activity is not itself conscious in the sense of a person or a subject.

From this point forward Varisco takes quite a different approach. Bergson says that the mechanistic laws are products of the intellect alone, and that matter itself is entropic. Varisco, however, believes that "spontaneous activity", as he calls it, is characteristic of all reality.

Certainly Varisco does not ignore the special aspects of life. Indeed he often uses life to illustrate his work. For example, he uses life to show that activity demands the reality of diversity. He says that what he calls consciousness in life is the product of activity meeting "interference." This fact of interference demonstrates the reality of diversity. The details of this we will discuss when we take up Varisco's epistemology.

For Varisco the laws of physics, or as he more often says, the mathematical or logical formulations, are implicit in the very fact of "Being."[107] Being for Varisco is the unifying characteristic of all reality. What happens intellectually, according to him, is that the logic implicit in Being becomes explicit. Therefore, the intellect does not impose a false mathematical structure, but instead makes

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[107] *ibid.* p.232.

explicit an already existing structure.

However, even this is not an effort to deny true diversity. Varisco insists that the very nature of Being is activity, and activity demands diversity. The necessary diversity results from the fact that Being has divided itself into "centers of spontaneity which operate indeterminately, each for itself -- the many, the monads."[108]

Physics, he says, includes unity and diversity in its formulations:

> In physics, spontaneity only makes its value felt in so far as it is presupposed by the observable facts and their causal connections, never explicitly. So also vigorous unity does not make its value felt explicitly, but only as presupposed by the mathematical laws and, jointly with spontaneity, by the causal laws--physical in the strict sense. Laws and facts given--physics has need of nothing else.[109]

For Varisco, any observable activity represents a center of spontaneity. The most elementary center of activity is what he calls an atom. Earlier in this paper we described atomism as one of the mechanistic theories which vitalists suggested could not be reconciled with life. Now Varisco is going to show that this is not necessarily true.

Second, we must observe that from the point of view of physics the influence of spontaneous centers within the universe is totally negligible: the necessity within the universe always being the same. Therefore, what makes for evolution in one area will be absolutely balanced by devolution in another part of the universe. This does not mean that variation is

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[108] *ibid*. p.239. [109] *ibid*. pp.243-244.

mere appearance.[110] However, it does mean that the necessity which is the universe is a constant, and is so measured by physics. It is an absolute constant.

To the vitalists' position Varisco says that their arguments for the uniqueness of life are unfounded, if this uniqueness is purported to negate the mathematical laws. However, Varisco's position also criticises physics for its formulation of the theory of entropy.

Varisco argues that the very necessity which makes the universe be, excludes the possibility of the universe tending towards an end.[111] On the other hand, this certainly does not suggest that our solar system or even life as we know it is permanent. For Varisco would say, the dissolution of one system is merely a condition of another being formed.

To summarise Varisco's position thus far: Being is a necessary given. Activity is the essential nature of Being. This activity manifests itself in spontaneous centers of Being, because activity must consist of unity and diversity. However, the activity of the universe is absolute -- a constant.

Physics for Varisco was quite correct, therefore, in its discovery that reality is mechanistic. However, in formulating universal laws it tends to overlook the fact of centers of spontaneity. These centers must not be so neglected.

The above, however, does not represent a complete answer to the vitalists' position on entropy. Their point against entropy centered on the fact that an organism appears to

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[110] ibid. pp.243-244. [111] ibid. p.245.

represent an increasing manifoldness. This would contradict the theory of entropy understood as an increasing disorder.

To help answer this, Varisco points out that centers of spontaneity form bodies. He says,

> Every body is a system, bound together and constituted by causal nexuses, external and internal. The difference between organised and unorganised bodies must be referred to the differences between the said causal nexuses.[112]

In other words, as spontaneous centers are connected causally, the connections produce variations in activity different from the variations demonstrated by the original centers. An organism illustrates the point. The centers which compose it take on new variations in activity because the activity is now partly determined by the centers interfering with one another.[113] Thus an organism is essentially mechanistic. However, this mechanism remains quite consistent with spontaneity.

Like Haldane, Varisco concludes that neither vitalism nor pure mechanism is an adequate formulation of reality. Vitalism does not account for the continuity of reality, and mechanism ignores diversity. The reason is that vitalism is "too" metaphysical, while materialism totally rejects metaphysics.

To attempt to explain activity without reference to matter, as vitalism so often does, leads to dualism. On the other hand, materialism gives rise to vitalism because it neglects to recognise a clear fact; namely, that activity is

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[112] *ibid.* p.248. [113] *ibid.* p.250.

a necessary condition for reality and that activity demands diversity. The "Being" of reality is not explained by materialism, but is merely assumed. Here Varisco agrees with the vitalists.

It is the fact of Being that is the common aspect of all reality. This is unlike Haldane's principle of organism in that organism assumes Being, but Being does not assume organism. Therefore, Being is the more primordial formulation. Being, says Varisco, is the uncontested principle of unity in the universe.

If one starts from the principle of Being, unity and diversity may then be accounted for. The unity factor has already been clarified. The factor of diversity results from Being manifesting itself in centers of activity. These centers are spontaneous in that they interfere with one another in patterns that were not totally predetermined. That is, no pattern of organisation is ultimate. However, each organisation in one area of the universe is balanced by a decrease in the organisation of another area. Therefore, unlike Haldane, Varisco does not hold that the particular matter/energy relationships are predetermined. All that is predetermined is that some relationships will occur. The unity of the cosmos depends upon relationships, but any of the relationships which now <u>are</u> could equally well <u>not</u> have been.

To put this point in another way, no particular organisation is permanent.[114] The permanance of an organisation would imply that the content of Being changes ultimately.

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[114] <u>ibid</u>. p.267.

This is not the case. Being allows variations within itself, but these variations do not effect the absolute content of Being. The ultimate remains a total unity because changes do not effect it as a unity. In this sense mechanism is right in viewing reality as determined by the principle of unity. And this unity is what physics describes in its absolute cosmic laws. In Chapter XIV we will see how Varisco himself deals more explicitly with the term absolute.

The problem with Varisco's system is that his understanding of the concept of Being continues to deny ultimate meaningfulness to diversity. Whatever new organisations are achieved, these ultimately make no difference to the cosmos. Haldane and Varisco explain diversity, but then leave one with the conclusion that diversity has no meaning. Man, on the other hand, seeks both individual meaningfulness and permanence. Meaningless diversity is no better, from the human point of view, than the total denial of diversity. Clearly Varisco agrees that the mechanistic use of the term absolute has no ontological basis, as no abstract physical principle can account for the existence of activity. It is to vitalism's credit that this point was made clear. On the other hand, contrary to vitalism, both Haldane and Varisco suggest that when rightly interpreted the source of all activity can be seen as innate within reality. In particular what we know as activity results from the irregular distribution of units of energy throughout the universe. Furthermore, energy's distribution can be analysed according to its organisation into matter. Therefore, in any particular case the thorough understanding of the organisation of matter can determine its

necessary energy potential, i.e. the necessary nature of its future activity. Yet this fact does not negate the principle of spontaneity resulting from the irregular distribution of matter/energy in the universe. However, should one have a cosmic perspective, irregular distribution would in no way change the absolute balance between matter and energy. Thus we are once again at the point of stating that for Varisco, and indeed for Haldane, diversity does not finally change the universe as a whole, and thus diversity cannot be said to have ultimate meaning.

CHAPTER VII: Emergent Evolutionism

C. Lloyd Morgan is the name most widely associated with Emergent Evolution. The central principles of his thoughts are found in his book Instinct And Experience published in 1913. However, in the two volumes of his Gifford Lectures published in 1923, under the titles Emergent Evolution and Life, Mind, And Spirit he considerably expands and clarifies his thinking.

In part this clarification is the result of his response to another development of emergence offered by S. Alexander in his work Space, Time And Deity. Therefore it is helpful to begin with Alexander's work.

A. S. Alexander's Space-Time

The reasoning behind the formulations made by neo-mechanism will be greatly clarified by the work of Samuel Alexander, who, as we will see, shares many formulations with Varisco. The reason for this is that involved for both is the desire to find some factor which absolutely unifies all reality. Otherwise, the argument that there is an ultimate difference between the activity of matter and of life cannot be well refuted.

We can say that Varisco's and Alexander's positions generally represent the same basic assumption that activity constitutes all of reality. However, Varisco did not consider the point that bodies, which are complexes of activity, appear to fall into characteristic categories. For example, there are organisms that think, and organisms that do not

think. Varisco's system of spontaneous and ultimately impermanent organisations does not explain why many organisations appear to occur in regular and orderly fashions. The order of evolution is an example of a pattern which Varisco's system does not explain. Therefore, Alexander attempts to give a new description of the common factor of reality, which will explain why there are categories of bodies similar to one another in the variations that they show, and which will account for why these variations are permanent.

We begin in Alexander with the assumption that change is totally extra-material. Space-Time is for Alexander the necessary component of change, i.e. it is both unity and diversity. Matter is not necessary to activity. Thus we could think of change with or without matter being involved.[115] In fact Alexander says that it is correct to think of reality as composed of "events" rather than of "objects." "Thus Space-Time," says Alexander, "is a system of motions, and we might call Space-Time by the name of Motion were it not that motion is in common speech merely the general name for particular motions, whereas Space easily and Time less easily is readily seen to be a whole of which spaces and times are fragments."[116]

The particular events in Space-Time Alexander calls "point-instants." A given point-instant may be thought of as being an event with relative space (small 's') and relative time (small 't'). Thus he would answer Bradley's question of

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[115]Alexander, S. Space, Time And Deity. (London: Macmillan And Co., Limited, 1920). Vol. I. pp.43-44.

[116]ibid. p.61.

what relates by saying Space-Time. Nevertheless, this does not exclude the fact of spatiotemporal relationships.

Therefore, what we call matter is merely composed of various modes of Space-Time. At no point does any additional factor such as a vital force appear. What we know as categories of reality, for example, are merely factors in the determinations of the space-times themselves.[117]

Thus Alexander says, "For it is clear that Space-Time takes for us the place of what is called the Absolute in idealistic systems."[118] It is the common factor which unifies all of reality.

Second, Alexander goes on to show how the particular categories or "levels" of reality come about. For example, he explains how men appear to be composed of body and mind by saying that this corresponds to a configuration of Space-Time in which Time is the Mind of Space-Time.[119]

For Alexander the levels of existence are: Space-Time, matter, life, mind and God. Having already looked at Space-Time, we will move to a consideration of the level "matter."

Alexander believes that at a certain level of complexity of motions what we call "matter" emerges. Here it is appropriate to point back to Varisco's term nexus, which was described as a complexity of interfaces which produce variations by interference. At this one point Varisco is clearer than Alexander, because Alexander never really says much about the

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[117] ibid. p.190. [118] ibid. p.346.

[119] Alexander. Space, Time And Deity. Vol. II. p.44.

internal workings of the various complexities. He instead only describes them externally. Of course, he does say that the levels correspond to various configurations of Space-Time, but the implications of this are not at all clear.

As matter emerges from Space-Time at a given level of complexity, so at a still greater level of complexity life emerges from matter, and finally when the complexity is sufficient mind emerges in life. Thus each of these levels is a new order of complexity. Finally, Alexander attempts to account for the permanence of these organisations.

Both Bergson with his élan and Driesch with his entelechy suppose an unique factor within life -- a factor over which the laws of physics do not hold. Alexander's position does away with the necessity for such a principle. He says, "Instead of straightway postulating an entelechy to act as a guide, it would seem to me more reasonable to note that a given stage of material complexity is characterised by such and such special features..."[120]

For example, to the so-called special feature demonstrated by life Alexander gives the name "plasticity." Likewise the unique feature of mind he calls "consciousness." Beyond mind the next emergent level is God. God for Alexander has the empirical quality of "Deity" in the sense that life has plasticity and mind has consciousness.

Each of these special factors is the element of permanence within the respective level of emergence. For example, once the organisation of Space-Time has achieved the level

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[120] ibid. p.65.

of life, the characteristic of plasticity is a factor which is permanent in spite of the fact that specific entities having this characteristic are not themselves permanent. Any such factor of permanence is called by Alexander a "nisus." A nisus continually draws Space-Time into configurations which represent the emergent levels.

A nisus prevents the regression from a given level of complexity, once that level has been achieved. However, it does not prevent the development of still greater complexities, some having their own nisus. According to Alexander, the nisus of the greater complexity will include the nisus of any organisation less complex than itself.

Therefore, nisus is also that which draws lesser levels of complexity toward its own higher level. The nisus which at present directs the whole universe is Deity.

It is important to understand that the nisus of each emergent level is the common factor in which all the entities on that level participate. The exception to this is Deity in which only God presently participates. This is not surprising, as each level of organisation has increasingly fewer members. The Space-Time of the universe is absolute -- constant. Therefore, a greater organisation does not produce <u>more</u> Space-Time; it merely organises it into more complex configurations. If this was not the case, Alexander's system would violate the Law of the Conservation of Energy. However, while one might accept the fact that consciousness is a factor which is not exhausted by any given mind, one usually tends to think of God exhausting the factor of Deity. Therefore, it is necessary to develop Alexander's point about the emergence of Deity more fully.

According to Alexander the nisus Deity is characterised by an organisation which includes any lesser nisus, even consciousness. The nisus consciousness, for example, does not change in quality, but it allows changes among the entities on its level as more entities are drawn to the level of consciousness. That is, the entities within consciousness reflect the aspect of change, while consciousness qua consciousness remains changeless. Thus a given nisus does not prevent change even among the entities on a particular level. Likewise, God, the single entity on the level of Deity, reflects the fact of change on that level. In other words God changes as the entities on all other levels change; yet Deity as a principle of unity, which includes every other nisus, does not change. Thus God does not include the nisus Deity because as an entity he is not changeless.

The entities on each level maintain the fact of diversity, while the nisus maintains the principle of unity. Thus permanence is assured for man because of the nisus consciousness, and permanence is assured for God because of the nisus of Deity. Consciousness is of course influenced by Deity which draws consciousness towards itself.

On the one hand, a nisus creates diversity, as the nisus brings new entities to its respective level of emergence. On the other hand, the entities on a given level create their nisus, as the nisus does not exist apart from the entities which compose it.

The latter two facts being considered, one is brought to the conclusion that activity requires both unity and diversity. Thus we can establish Alexander as a Process thinker.

His position is mechanistic because he associates Space-Time with the term absolute, and argues that Space-Time is itself changeless. For Alexander this means that the levels of emergence are predetermined. It is the nature of Space-Time itself that it allows only certain configurations. Ultimately, according to Alexander, all of Space-Time is included in God. By this he means that God is the highest emergent level; He is the level of emergence having only one member. Of course, as we saw, God does change in the sense that He acquires new configurations into himself, but the principle or nisus Deity, i.e. the necessity of acquiring all realised configurations of Space-Time, does not change.

The nisus Deity, like any other nisus, is primordial in that it results from the very nature of Space-Time, but the God which presently exists has emerged as have all other entities. Man can therefore know the levels of emergence; however, he cannot predict the future content of any level.

Clearly the use of the term absolute continues to raise the problem of the real significance of individuality. Each entity does contribute to the cosmos in the sense that some entities are needed in order for each level of emergence to be established. Thus man, for example, contributes to consciousness, and beyond this to the universe by also making the level of Deity a reality. On the other hand, the contribution of one man is ultimately no different from that of any other. Men as men contribute to consciousness, but the value of all contributions is the same. It makes no difference to the absoluteness of Space-Time what a man does. Space-Time is quite impassible to any particular human action. The individual's contribution is therefore totally predetermined in

Alexander's system.

B. C. Lloyd Morgan's Materialistic Emergence

Alexander regularly insists that he is doing metaphysics. Morgan in his earlier works on emergence avoids that term; indeed he rejects it. For Morgan the term metaphysics always implies that something is imposed on nature ab extra. He goes so far as to suggest that to be metaphysical is to be vitalistic in one's position.[121]

Alexander's Nisus, Berkeley's Eternal Spirit, Kant's Transcendental Ego, Driesch's Entelechy and Bergson's Élan would all, according to Morgan, fall into the category of something which determines the organism. Morgan says,

> The point of my contention is that the progress of inorganic evolution is replete with events which are unforeseeable on the basis of the fullest possible experience prior to the actual occurrence of such events. All that we can do, in science, is to correlate the new with the old.[122]

This position is clarified in Morgan's later work Emergent Evolution, where he considers Alexander's Space, Time And Deity. There are many careful and specific objections to Alexander's work; however, we will look at only the key issue.

Morgan wants to use material-events as the starting point

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[121]Morgan, C.Lloyd. Instinct And Experience. (London: Methuen & Co., Ltd., 1913). Second Edition. p.viii. The word vitalistic as I have used it in this case should be read in view of Haldane's objections to vitalism; namely, that vitalism is unsuccessful in allowing true individuality.

[122]ibid. p.151. Varisco said that to add permanence to pure change would demand that activity or Being should be endowed with forms. Consistent with this opinion we now see that Morgan calls Alexander's nisus just such an endowment.

for speculations. To speak of the metaphysical "source" of activity seems to him quite impossible. For example, he says that he can find no evidence that spatiotemporal events take place apart from material reality.[123]

On the other hand, Morgan is prepared to develop a system of emergence that is grounded fully in our experience of material-events. In particular Morgan says that what is meant by levels of emergence is the emergence of different kinds of relatedness within material-events. "On our view liquidity, solidity, life and mind are, one and all, names that we give to the specific kind of relatedness that obtains in this or that entity under consideration."[124] The common characteristics of the levels of emergence are not, as Alexander suggests, principles of unity outside of the entities, in which the entities participate.

Morgan's levels of emergence are matter, life and mind. To the relatedness of each level he gives a name. For example, the relatedness of the mind is called "projicient reference." Later we will see that by the term "projicient reference" Morgan suggests that the way in which the mind refers properties to particular stimuli can be accounted for physiologically. Thus, to explain the workings of the mind one need not go beyond material-events within the conscious entity.

The purpose of Alexander's concept of nisus was to account for the relative permanence observed within levels of emergence.

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[123]Morgan, C.Lloyd. Emergent Evolution. (London: Williams And Norgate, 1923). p.24.

[124]ibid. p.66.

Morgan, having rejected this concept, must either give an alternative explanation for permanence or return to a position similar to Varisco's.

To account for permanence Morgan assumes something which he calls a Plan. On each level of emergence this plan appears in a different form. In matter the plan is known as physical laws. In organic life the plan is best called heredity. On the conscious level the plan is composed of a scheme of values. The concept of plan does not, however, eliminate individuality. In the case of man, for example, at the basis of value or worth there are many conscious minds. Nevertheless, the general plan of value does provide a unity because all minds participate within this same realm of reality.[125]

That is, a plan is the scheme of a given level of emergence, that has been shaped and created by the entities which compose it. This implies that the particular levels of emergence were not predetermined, but are themselves the result of emergence. Diversity and unity develop at the same time. Unity does not merely leave room for diversity. Alexander, of course, said that the levels were predetermined and simply allowed for individual entities within themselves.

It is Morgan's plan which replaces Alexander's nisus. The great advantage of Morgan's position is that a more firm concept of individuality is allowed. In the case of man, as with other entities, the specific actions of each individual affect the plan. Thus for man a concept of value is supposed, as the actions of individuals have ultimately different

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[125]Morgan, C.Lloyd. Life, Mind And Spirit. (London: Williams And Norgate, Ltd., 1923). p.273.

effects.

Next Morgan must explain how unity and diversity can develop at the same time. Thus far he has merely argued that his formulation is the best description of the evidence available. To finally support his formulations Morgan introduces a specific doctrine of God.

Of course he admits that theism is not subject to rigorous proof. However, he argues that to accept theism makes his system complete. That is, it makes his system complete by showing that ultimately both unity and diversity must emerge alongside one another.

Morgan's doctrine of God's nature must be understood in terms of individuality and personality as God's two "poles." The former pole is the pole of absolute uniqueness, the latter is the pole of the universal features of the given levels of emergence. "Bi-polarity" is also what constitutes the "personal."

Morgan goes on to say that all reality is personal; or that the plan of reality follows the model of the personal; or, for one of religious awareness, reality follows God's nature. That is, reality is bi-polar, as God has an absolute or individual pole, and a relative pole of personality.

Both Morgan's bi-polar God and Alexander's Space-Time harmonise unity and diversity. However, according to Morgan there is a significant difference. Alexander has no difficulty with calling Space-Time absolute. Morgan prefers not to call God absolute, even though God and Space-Time appear to have the same function, for an understandable reason. The term absolute when applied to God is easily interpreted

to mean that God has no relationships.

In Morgan's system the absolute pole has retained the function of providing unity. However, in order to account for his understanding of emergence Morgan has qualified the concept absolute in two very important ways. First, the relative pole has been made ultimately equal to the absolute pole. That is, unity and diversity are understood as ultimately complementary. Second, the absolute pole and the relative pole are made equal aspects or poles of God.

By this formulation, Morgan has suggested a way to overcome one of the greatest problems for Process thought. As we have said, all Process thinkers agree that activity can be explained only if there is unity and diversity. That is, activity is understood to be a process, i.e. an interaction between unity and diversity. However, if unity is absolute, which we have shown to be the general opinion, then Process has not been able to explain why there should be activity at all. Process up to now has no more explained why the cosmos is not presently in a unified state, than physics has explained why the cosmos is not in an entropic state, if entropy is indeed being rightly interpreted. Strictly speaking, Process has not explained why there is any process rather than no process.

It is this problem which Morgan has attempted to solve. His solution is that process in the cosmos reflects the ultimate nature of God. The Absolute is not something greater than God, but less than God. Creation is as it is, because it reflects the nature of the Creator. An Absolute, such as Alexander's Space-Time, cannot be the creator of a process. Logically Alexander's formulation suggests that the Absolute

(Space-Time) creates something which is contrary to its own absolute nature.

Morgan does not attempt to work out the metaphysical implications of his position. For example, he does not explain what is the concrete content of the absolute pole, as it is not all of reality. However, his work clearly implies that absoluteness has both a functional and a concrete reference, which must be seen in terms of a bi-polar universe. Therefore, in this regard, Morgan is our first example of a Process thinker who begins to accept the full implications of the Process position. Of course, there remains the problem of why he should be classed with mechanists. An explanation of this is given in William McDougall's discussion of neo-mechanism.

C. William McDougall's Critique Of Materialistic Emergence

In his book Modern Materialism And Emergent Evolution McDougall makes a distinction among vitalists, animists and mechanists. Briefly these distinctions are: (1) Vitalists believe that the living body must be explained in terms of both mechanistic and teleological principles; (2) Animists identify teleology as guidance by a purposeful spirit; (3) Mechanism rejects all teleology.[126]

Having earlier discussed McDougall's general objections to materialism, we can look briefly at his special reasons for calling emergence mechanistic. McDougall's chief explanation is that matter and mind cannot be combined as the

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[126]McDougall, William. Modern Materialism And Emergent Evolution. (London: Methuen & Co., Ltd., 1934). Second Edition. p.32.

emergent evolutionists suppose. He says of their efforts, "I suggest that it is not valid; that the words are used to denote two types of synthesis that are fundamentally different and distinct; and that by the use of the words 'configuration' (Gestalt) and 'emergence' it is falsely made to seem that creative synthesis (which undeniably occurs in the mental sphere) occurs also in the physical."[127]

He further points out that the emergent evolutionists never really give any examples of instances of emergent qualities within the physical world. Indeed physical reality, as in the case of Morgan's plan of the physical laws, appears totally predictable. The quality of individuality or diversity comes only on the level of mind.

Certainly McDougall's arguments are interesting, but they are also what one would expect from an animist. Nevertheless, it is important to observe that emergence was often considered a mechanistic philosophy, and it was able to win over very few vitalists.

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[127] ibid. p.120. McDougall places the origin of Emergent Evolution or Emergent Vitalism with J.S. Mill's concept of mental-chemistry. (p.118).

CHAPTER VIII: Teilhard de Chardin As A Process Thinker

The Process thinkers thus far studied bring us to the Process philosophies whose influences are most strongly felt today. These are the writings of Teilhard de Chardin and Alfred North Whitehead.

The great majority of Teilhard's works were published after his death in 1955. However, many of them were written during the same period in which Whitehead produced his major philosophical writings, and both men demonstrate that common influences apply to their thinking.

Even though Teilhard's works became available much later than Whitehead's, we will begin with his writings. The reason for this is that Teilhard represents a development of the emergent evolutionism, which we have been discussing. Whitehead, on the other hand, does not accept certain of the formulations within emergence.

We shall begin by pointing out something in common between Teilhard and Morgan; namely, Teilhard like Morgan regularly insists that he is not doing metaphysics.[128] Likewise, both have similar reasons for this position. Morgan, we may recall, suggests that if one is to remain grounded in experience -- an experience made up of material-events -- it is not possible for science to talk about true metaphysics. Teilhard says that he grounds his work in experience of the phenomenal world, and therefore finds it impossible to explore the

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[128]Teilhard de Chardin. The Phenomenon Of Man. trans., Bernard Wall. (London: Wm. Collins sons and Co. Ltd., 1959). p.31.

essence of being, apart from the entities themselves.[129]

In matters such as this very little evidence can be found to suggest that Teilhard was directly influenced by Morgan. Rather one is on safer ground in observing that both of them are responding to the situation that vitalism, with all its merits, persists in ending with a dualism between mind and matter.

However, we know that both men were influenced by Bergson, and that they see themselves somewhat speaking to his results. At one point Teilhard says, "We have had good reason to smile at Bergson's 'élan vital'. But have we not at the same time thrown it overboard too lightly?"[130]

With Emergent Evolution in general Teilhard shares the attempt to reconcile matter and life. With Morgan in particular he shares a grounding in material events, and a belief that pure mechanism does not explain why there is activity rather than no activity. We will illustrate briefly the two former contentions, and give the latter one greater emphasis.

Teilhard shares with the emergent evolutionists the concepts of levels within evolution. For example, he speaks of the movement from the atom to the cell, to the thinking

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[129] ibid. p.31.

[130] Teilhard de Chardin. Appearance Of Man. (London: Collins, 1965). p.261. Madeleine Barthèlemy-Madaule has made a complete study of Teilhard's response to the Bergsonian dualism. She sums up this response by writing, "Et de cette vocation spirituelle de la matière, découle la résolution du dualisme, il n'y a plus deux routes, mais "deux sens sur une même route", deux mouvements inverses, mais ils ne se partagent point le monde comme chez Bergson, qui oppose la matière à la vie." Bergson et Teilhard de Chardin. (Paris: Éditions du Seuil, 1963). p.605.

animal.[131] Usually Teilhard speaks of the level of life as the "biosphere" and the level of the thinking animal as the "noosphere." The level beyond the noosphere is called "Omega", and we shall discuss Omega more fully shortly.

Life, according to Teilhard, emerges from matter. He says, "If matter is left to itself, in a sufficient mass and for a sufficient length of time, and in suitable conditions of temperature and pressure, it always in the end, through the effect of chance and large numbers, becomes vitalized..." [132] In other words he accepts the general point of view, consistent with emergence, that the various levels are the result of an increased complexity or organisation. Likewise, for Teilhard, at a certain level of organisation, life becomes conscious.[133]

To be conscious according to Teilhard is to be reflective. Teilhard believes that the reflective capacity has become man's chief problem. In particular it is reflection that has led man to make a distinction between matter and life.[134] This of course is very similar to Bergson's position that the intellect creates the material laws. Furthermore, characteristic of Bergson, Teilhard says that the greatest dilemma for modern man is the opposite currents of matter and life.[135]

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[131]Teilhard. Phenomenon Of Man. p.188.

[132]Teilhard de Chardin. The Activation Of Energy. trans., René Hague. (London: Collins, 1970). p.208.

[133]ibid. p.156. [134]ibid. p.23.

[135]Teilhard de Chardin. Christianity And Evolution. trans., René Hague. (London: Collins, 1971). p.109.

For Teilhard matter is essentially a multiplicity. Spirit is a unity. Consistent with Process thought, Teilhard holds that activity demands both a unity and a multiplicity.[136] However, within the multiplicity which we call matter there is a potency for unity. This "potency" for unity is not realised until the development or emergence of consciousness.[137] Therefore, as Bergson points out, matter qua matter appears to be entropic. On the other hand, the idea of the spiritual being potentially within matter solves for Teilhard the spirit-matter dualism. "If matter and spirit are regarded as synonyms, the former of multiplicity and the latter of unity, then they are not two heterogeneous or antagonistic things, coupled together by accident or force."[138] Matter is multiplicity with the potential for unity, and mind or consciousness is unity that has been actualised in the material world.

Matter is generally thought of as being unified by virtue of absolute physical laws. Life or spirit, on the other hand, is used to prove the fact of individuality. So the usual formulation would be to say that life proves individuality. On the contrary Teilhard sees the spiritual as a unity, a complex organisation. The reality of this organisation depends upon a previous material multiplicity. Teilhard goes so far as to say, "No spirit (not even God within the limits of our experience) exists, nor could structurally exist without an

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[136]Teilhard. Activation Of Energy. p.257.

[137]Teilhard. Christianity And Evolution. pp.30-31.

[138]Teilhard. Activation Of Energy. p.124.

associated multiple..."[139]

Therefore, we must understand what Teilhard means by saying that matter is a multiplicity, and that spirit alone provides a unity. He says that the first two laws of thermodynamics are inadequate to explain the present organisation of the universe. Taken together they suggest that greater organisation is impossible without an increase in energy, and that there is no possible material source for the energy required for organisation. Thus matter is inherently disorganised. It is a multiplicity. Alone material laws cannot explain unity or organisation at all. Here we are reminded of Bradley's arguments that materialism could not account for what relates.

In order to account for unity Teilhard suggests a third law, the law of the organisation[140] or reflection[141] of energy. Keeping in mind the necessity of avoiding contradiction with the laws of conservation and entropy, Teilhard says, "To think 'the world' (as physics is beginning to realise) is not merely to register it but to confer upon it a form of unity it would otherwise (i.e. without being thought) be without."[142] This unity is spiritual or conscious, and while not being separated from matter, it creates an organisation which counters entropy.[143]

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[139]Teilhard de Chardin. Human Energy. trans., J.M. Cohen (London: Collins, 1969). p.57.

[140]Teilhard. Activation Of Energy. pp.132-133.

[141]ibid. p.337. [142]Teilhard. Phenomenon Of Man. p.274n.

[143]Teilhard. Activation Of Energy. p.325. Here Teilhard

Consciousness represents an organisation beyond entropy. Consciousness through reflection is capable of intellectually embracing the world.[144] The achievement of the level of consciousness, says Teilhard, must be the basic movement within evolution.

Another name which Teilhard uses for his third law of the organisation of energy is involution.[145] To illustrate involution Teilhard uses the model of person. His use of person is quite like the use of that term by Morgan, i.e. to become personal is to find unity through individualisation.

However, Teilhard prefers to speak of becoming centered, rather than individualised. Thus Teilhard says that the outcome of involution is the "Center." The Center is that which represents a complex-unity of all consciousness.

The one name commonly used for the Center is Omega. "Omega, in the form that the evolutionary structure of the world demands for it, is much more than the 'real' image which

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states his positive use of the reflective aspect of consciousness, over against Bergson's negative feeling of how consciousness through the intellect "thinks the world." Teilhard's very poetic statements about spirit, while not essential to our paper at this point, should be illustrated: "Let others, fulfilling a function more august than mine, proclaim your splendours as pure Spirit; as for me, dominated as I am by a vocation which springs from the inmost fibers of my being, I have no desire, I have no ability, to proclaim anything except the innumerable prolongations of your incarnate Being in the world of matter; I can preach only the mystery of your flesh, you the Soul shining forth through all that surrounds us." Hymn Of The Universe. (London: Collins, 1965). pp.36-37.

[144] ibid. pp.323-324.

[145] ibid. pp.167-168.

is destined to take shape in the future at the focus point of the convergent universe."[146]

In other words, reflection of energy is the bringing together of all diversity into a complex unity. The new law of energy is manifested within human consciousness, which itself is a unity of a multiplicity of factors. Both the multiplicity and the unity are already present within reality, but they are being brought together into a total complex-unity -- a center.

It is this third law which answers the question of why there is organisation rather than disorganisation.[147] That is, the fact of unity and diversity reflects the nature of the ultimate source of activity -- the conscious center.

As we might expect, Teilhard speaks of Omega as being personal. The term absolute applies to it in the sense that it ultimately holds all consciousness within itself. Furthermore, Teilhard says that Omega already has as a concrete content the level of consciousness organisation already achieved.

Teilhard makes God, or Omega, bi-polar. One pole or part of Omega he says is transcendent; that is, independent of evolution. The other aspect of Omega has always been emerging.[148]

In other words, Teilhard feels that by his very nature God has always been able to ultimately unite all diversity.

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[146] ibid. p.112. [147] Teilhard. Human Energy. p.44.

[148] Teilhard. Activation Of Energy. pp.112-113.

The degree of diversity does not change this ability. Therefore, in terms of the ability to unite God is transcendent. In this aspect God determines reality, but it is a determination which does not preclude diversity. Therefore, God is also immanent, i.e. he participates in relationships. Only within this understanding, according to Teilhard, can one account for conscious activity.

In general Teilhard agrees with Morgan's formulation that activity must have its source in a bi-polar God.[149] However, Teilhard goes much further than Morgan in the description of the pole of unity. It is absolute in the abstract sense that by inner necessity it is always a principle of unity. However, it also has a concrete content, namely, it is a unity of all the reality that has reached the level of consciousness. No true organisation exists outside of the absolute pole, but disorganised matter, having only the potential for unity, may exist outside of it without contradiction.

Furthermore we must recall that unity has been defined as an increase in organisation. Organically speaking, organisation intensifies individuality and in turn is developed through this intensification. Thus the above understanding of the absolute pole can be reached only in company with the bi-polar concept of the universe.

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[149] We have said that Teilhard generally appears to present a concept of God close to Morgan's. However, in the following quotation we can see an exception to this: "For such a Christian, exactly as for the modern philosopher, the universe has no complete reality except in the movement which causes all elements to converge upon a number of higher centers of cohesion (in other words, which spiritualizes them); nothing holds together absolutely except through the Whole; and the Whole itself holds together only through its future fulfillment." Christianity And Evolution. p.71.

So far Teilhard's use of the term absolute is completely consistent with the Process understanding of the role of the absolute outlined in our Introduction. However, for Teilhard the absolute pole is one aspect of God, who is the ultimate source of activity. Activity, as we have said, is characterised by organisation. Indeed matter, multiplicity, demonstrates no activity other than organisation. Therefore, absoluteness in reference to God, the source of activity, must mean an ultimate organisation of all multiplicity, which in fact Teilhard sees occurring at Point Omega -- somewhere in the future. Whenever absoluteness refers directly to some aspect of the source of activity, the nature of that source must be realised through activity. Because, within such a formulation consistency is maintained only when the "source's" absolute aspect determines activity in the same sense that mechanism's absolute physical principle determines activity.

In Teilhard's system true multiplicity is gradually exhausted, as all reality becomes centered. Of course Teilhard argues that unity has a complex nature, and thus does not eliminate diversity. Nevertheless, it is clear from our study that the disorganised matter outside of consciousness, and the spiritualised individuals are not the same. Furthermore, in order to include disorganised matter in his system Teilhard has made it an essential factor in activity. How activity can continue after all reality has been spiritualised remains an unanswered question. Indeed, Teilhard offers no arguments that show that point Omega will be anything else than an entropic state. Depending upon how one looks at the matter, the entropic state may be viewed as absolute disorganisation

or as an absolutely uniform field.

Exactly how Teilhard envisaged the internal nature of the universe at point Omega is not completely clear. However, if at that point true diversity is eliminated, which as we have shown is a possible conclusion, then one might conclude further that diversity could not be said to be an ultimate aspect of God's nature, and therefore the source of activity is not finally explained.

However problematic Teilhard's account of activity may be on a purely metaphysical level, there remains little question of the importance of his description of the nature of activity in the phenomenal world; namely, that activity is an organisation -- a process -- rather than pure cause and effect. The working out of a clearer metaphysical account of process is achieved for us in the writings of Whitehead to whose thought we now turn.

CHAPTER IX: A.N. Whitehead's Concept Of Dipolarity

Teilhard was concerned with the dualistic problem faced by vitalism. Therefore, he adopted an emergent position. However, emergence, as McDougall points out, is a form of materialism. Teilhard speaks about the spiritual, but it is a sort of pantheistic spiritualism.

Whitehead is sympathetic to much that emergent evolution has to say. Like the emergent evolutionists in general he believes that both unity and diversity are inherently within creation.[150] But he is most like Alexander in suggesting that "events" rather than "objects" constitute the real world.[151] For example he says,

> My own view is a belief in the relational theory both of space and time, and of disbelief in the current form of the relational theory of space which exhibits bits of matter as the relata for spatial relations. The true relata are events.[152]

Finally he speaks of the division of nature into appearance and reality as "Bifurcation,"[153] rejecting this idea in company with Alexander, Morgan and Teilhard.

However, Whitehead's conception of an emergent complexity is unique. While like Alexander he sees pure events rather than material-events at the basis of reality, he is unlike even Alexander in the way in which the events relate. For

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[150] Whitehead, Alfred North. The Concept Of Nature. (Cambridge: The University Press, 1920). pp.12-13.

[151] ibid. pp.14-15. [152] ibid. p.24. [153] ibid. pp.30-31.

Alexander the events interact with each other, but for Whitehead the events extend over each other, so that every successive event includes all of the events which led up to it. Furthermore, Whitehead does not hold that the events are composed of Space-Time.

It is interesting, however, that Morgan in his reading of Whitehead's The Concept Of Nature saw Whitehead as suggesting something which is totally opposite to the emergent view. Morgan says, "For Mr. Whitehead, as I gather, mind is an order of being wholly disparate from 'nature'..."[154]

Morgan's view, if it is a correct interpretation, would tend to place Whitehead in the category of animists. Indeed, McDougall, a leading exponent of animism, agreeing with Morgan, tends not to place Whitehead in the class of Modern Materialists. Rather, he says that on certain points Whitehead's view is consistent with his own.[155]

In The Concept Of Nature there is considerable justification for understanding Whitehead as seeing mind wholly disparate from nature. For example, he says that objects situated in events are intellectual abstractions.[156] That is to say, objects are the result of the mind working on nature.

Sections of Religion In The Making tend to confirm what has just been said. Whitehead speaks of the physical and

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[154]Morgan. Emergent Evolution. p.236.

[155]McDougall. Modern Materialism. pp.111f.

[156]Whitehead. The Concept Of Nature. p.125.

spiritual worlds.[157] He says that the concrete fact is always "dipolar", i.e. having a physical and a mental pole.[158] In other parts of the book he speaks of the world as two sided. One side is matter of fact; the other side is ideals.[159]

However, McDougall is concerned about Whitehead's decision to use a concept of "organism." He says, "And with due deference to those philosophers who like Whitehead tell us that the whole of nature consists of organisms, I venture to question whether the word 'organism' can properly be applied to inorganic things that are not the products of design or of teleological causation."[160]

The first philosophy of organism which we considered, that of Hans Driesch, was vitalistic and was so recognised. Next we considered Haldane's theory of organism, which was mechanistic, and which like Whitehead's system proposed to include the inorganic. It is small wonder, therefore, that McDougall was suspicious of the term.

In view of the above, it would be helpful to examine whether Whitehead is chiefly an emergent evolutionist, or an animist, or if in fact he is producing something different from either of these positions. The place to begin is with a more careful look at Whitehead's use of the concept "organism."

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[157] Whitehead, Alfred N. Religion In The Making. (Cambridge: The University Press, 1926). pp.102-103.

[158] ibid. p.118. [159] ibid. p.99.

[160] McDougall. Modern Materialism. p.130.

The concept of organism as a model for his philosophy arises from the problem which life presents to science. Whitehead says,

> The status of life in Nature is the standing problem of philosophy and of science. Indeed, it is the central meeting point of all the strains of systematic thought, humanistic, naturalistic, philosophic.[161]

The concept of organism begins for Whitehead with the Process emphasis upon activity being composed of unity and diversity. The principle of activity is at the basis of all organisms, and a single organism or event is a center of intensity within the field of activity. All single events are organisms, but an organism may also be composed of a society of events. This being the case, it is appropriate to say that more complex organisms emerge out of antecedent states of less complex organisms.[162] Thus as reality is made up of events, and as events are defined as organic, we can call "reality" organic.

Whitehead suggests that those organisms which contain only a single event are known to us as molecules or electrons. Organisms composed of a society of events are known to us as living, self-conscious beings. However, there are a great confusion of structures which are not organisms.[163] That is, there are groups of single event organisms, which, as groups,

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[161]Whitehead. Alfred N. Nature And Life. (Cambridge: The University Press, 1934). p.53; and Modes Of Thought. (Cambridge: The University Press, 1938). p.202.

[162]Whitehead, Alfred N. Science And The Modern World. (Cambridge: The University Press, 1925). p.152.

[163]ibid. p.156.

do not have a complexity greater than the single events which compose them. Therefore, while all structures are composed of organisms, not all structures are themselves organisms.

Whitehead noted that the electron is possibly the basic event of pure activity. It provides unity because it is the same within or without a living body. Outside of the living body, however, the electron runs blindly. Within the body it runs according to the plan of the body. This plan is essentially the mental state of the body.[164]

According to this view, previous philosophies of organism were quite right in saying that activity was ultimately organic. However, they were wrong when they suggested that "all" structures are organisms. Many structures are merely increasing concentrations of organisms. The emergent levels of matter and non-self-conscious life, if life of this sort actually exists, are examples of non-organic structures. Therefore, the study of matter and life is nothing but the study of the organisation of electrons. Physics' claim that matter and life show no essential difference in structure is true. For example, life is not more organised than matter, though it may be more concentrated. As regards the matter/life issue, Whitehead is on the side of physics and is against vitalism and emergence.

On the other hand, Whitehead agrees with Morgan and Teilhard that physics does not answer the question of why there is activity at all, and he agrees with vitalism and emergence that mechanism cannot account for mind, i.e.

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[164] ibid. p.111.

self-conscious organisms. First of all we must remember that, according to Whitehead, each electron is spontaneous in itself. That is, it has no predetermined purpose. The so called plan of the body is a coordination of these spontaneities. Within a living body the organisation of electrons produces purpose, but the living body is spontaneous just as the electron. Whitehead calls such an organisation a "society", and says that it is personal.[165]

Here "personal" is used much the same as in emergent evolutionism. The person is an increased individual made possible by an increased unity. In fact Whitehead at one point defines being alive as: "Whenever there is a region of nature which is itself the primary field of the expressions issuing from each of its parts, that region is alive."[166] Whitehead says that in a case such as this, atom and individual would mean the same thing; for both have an absolute reality which their components lack.[167]

We must note that Whitehead is very careful to maintain a vague line between life and mind, i.e. self-conscious life. The point at which life arrives at the quality of mind is important for an emergent position. However, Whitehead's system need only recognise the mental factor within some life forms.

Electron events and mind are always the two essential

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[165]Whitehead, Alfred N. Adventures Of Ideas. (Cambridge: The University Press, 1933). p.267.

[166]Whitehead. Modes Of Thought. p.31.

[167]Whitehead. Adventures Of Ideas. p.227.

elements of activity. Matter is not essential, nor is any other special level of emergence. Nature is pure activity, and mind (life) gives content to this activity.[168] However, the one cannot exist apart from the other. Whitehead says, "The doctrine that I am maintaining is that neither physical Nature nor life can be understood unless we fuse them together as essential factors in the composition of 'really real'..."[169]

Morgan was right in observing that Whitehead made mind primordial. It is not a factor which emerges, but it is an essential aspect of reality. However, Morgan misses the point that by this Whitehead is not denying the equal reality of the physical, nor does he deny spontaneity. Furthermore, McDougall is quite wrong to even consider that Whitehead is an animist. Whitehead does not say that mind animates nature. Mind for Whitehead is only one of the two factors necessary for activity. Likewise, McDougall's comment that Whitehead applies the term organism to inorganic things is a misconception. Whitehead actually says that things which are not themselves organisms are made up of organisms.

We have suggested that electrons are the necessary diversity, and that mind is the necessary unity, which together account for activity. However, as electrons and self-conscious beings are organisms, electrons must be understood as having unity within themselves, and self-consciousness

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[168] Whitehead. Modes Of Thought. pp.228-229.

[169] Whitehead. Nature And Life. p.57.

must be understood to contain diversity. Therefore, we have not quite clarified the meaning of the "plan" by which Whitehead says organisms form organic societies.

The point of positing organic societies is the need to account for permanence. Varisco's spontaneous centers of activity are quite like Whitehead's electrons. However, Varisco had to admit that they always came together in a random fashion, and that the resulting patterns had no element of permanence. Whitehead, on the other hand, does want to allow permanence in terms of organic societies.

In order to do this, Whitehead, like Teilhard and Morgan, must introduce the concept of God. It is God who provides the permanence of unity. Unlike Teilhard and Morgan, Whitehead's position implies two understandings of unity. The first is a principle of unity which exists within events or entities, and the second is a "nexsus" or unity of an organic society of events. This second understanding of unity is also called the "mental pole", and it is absolute when understood as the mental pole of God. The mental pole of God is complemented by a physical or relative pole. Thus Whitehead agrees with Teilhard and Morgan that the existence of anything rather than nothing depends upon the fact that God is "dipolar", and that the term absolute refers to one pole of God.[170]

Permanence is made possible by the absolute pole, because

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[170]Whitehead, Alfred N. Process And Reality. "An Essay In Cosmology." (Cambridge: The University Press, 1929). p.42.

any unity formed among events is retained by it. Thus in terms of the absolute pole there is an increasing organisation. However, this organisation does not change the fact that events have a unity within themselves that is not effected by their organisation. Morgan and Teilhard, on the other hand, suggested that unity depended entirely upon organisation. Their formulations meant that entities were ultimately determined by the absolute pole, as the organisation of that pole implied a decrease in multiplicity. Whitehead says that the organisation of the absolute pole does not decrease multiplicity. On the contrary, organisation intensifies multiplicity. Another way of presenting this point is to say that God is an event which participates in all organic societies. Thus God is ultimately related. The absolute or mental pole of God, therefore, becomes a unity of all the relationships in which God participates.

If multiplicity is a given, Whitehead argues, unity must be seen in terms of "true" multiplicity; otherwise one ends up by suggesting that what has emerged is different from what was given, i.e. the "given" multiplicity emerges into a unity. The contradictory nature of such a formulation Whitehead calls the "ontological principle."[171] In other words, any organisation must have continuity with the less organised states.[172] This continuity is what emergence lacks. Its formulation suggests that process eliminates diversity. The elimination

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[171] ibid. p.55.

[172] Whitehead. Adventures Of Ideas. p.238.

of diversity can hardly be seen as implicit in the fact of diversity as a given. Thus for Whitehead a "plan" allows for permanence, without determining the cosmos or eliminating the individuality of entities.

In the following quotation concerning human social structure Whitehead illustrates his point that organisation intensifies rather than reduces individuality:

> Indeed, one general end is that these variously co-ordinated groups should contribute to the complex pattern of community life, each in virtue of its own peculiarity. In this way individuality gains the effectiveness which issues from co-ordination, and freedom obtains power necessary for its perfection.[173]

In summary, Whitehead's point is that the principle of unity is not limited to the absolute as a pole of God. The principle of unity is one aspect of the process in which all entities, including God, participate. "Creativity" is the name that Whitehead gives to the ultimate principle of process. The principle of creativity will be fully discussed in Chapters XIX and XX. At the moment, however, we are more interested in the fact that the term absolute is not applied to the principle of creativity.

In its abstract aspect the absolute pole is a unity or organisation of all relationships brought about by God, as an actual entity, participating in each relationship. The concrete content of the absolute pole is the unity of all those relationships which have led to the present level of organisation. Outside of the unity of all past relationships,

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[173] *ibid*. p.86.

which is the absolute pole of God, exists the multiplicity of entities, each having independent unity in terms of its own present. That is, in one aspect all entities have an inner necessity by which they are the same from instant to instant. However, in a dipolar context this unity does not prevent entities relating.

Thus every entity has an abstract aspect, but this aspect is absolute only in the entity of God; for only in God is the concrete content of the absolute pole made up of all past relationships. Not only is the absolute pole less than God, but it is also less than the ultimate principle of unity. The ultimate principle of unity, which is an aspect of creativity, has no concrete content. Therefore, one has no reason to suggest that in order for the term absolute to be applied to one aspect of God that aspect must have as its concrete content all of reality. The Whiteheadian universe is not heading toward an ultimate concrete unity. If the latter were the case, then the use of the term absolute would have deterministic implications. Therefore, one factor unique to Whiteheadian Process thought is the effort to eliminate deterministic implications from the term absolute. Nevertheless Whitehead attempts to retain reference to the concept of unity supplied by the term absolute, which is not captured by any other term. As Kant says, "The word '<u>absolute</u>' is one of the few words which in their original meaning were adapted to a concept that no other word in the same language exactly suits." [174]

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[174] <u>Kant's Critique Of Pure Reason</u>. p.317.

Whiteheadian Process thought is consistent with mechanism in two respects. First it agrees that cosmic activity is innate within reality. Second, it agrees that a continuity exists within what we call matter, life and mind. For Whitehead this continuity is an organic continuum characterised by atomic structure. In other words, all reality can be analysed as built up from atomic units.

The second point disagrees with a vitalism which argues for the total uniqueness of life's activity or for a dualism between matter and life (mind). On the other hand, Whitehead agrees with vitalists that life demonstrates that the source of activity is not accounted for by mechanism's abstract physical principle.

Whitehead concludes with Morgan and Teilhard that the existence of activity along with permanence depends upon a God whose dipolar nature is characteristic of reality. All three agree that one pole of God is absolute and the other relative. However, Morgan and Teilhard differ from Whitehead by being unable to understand reality as ultimately maintaining God's primordial nature. That is, the former two emergent thinkers seem to suggest that multiplicity within reality becomes more and more organised until a single complex-unity is achieved.

On the other hand, Whitehead suggests that organisation eternally intensifies diversity. This is possible because electrons are themselves composed of unity and diversity, i.e. activity, even though they represent a single event. The point that single events are organic is a new one. Physics would have agreed that electrons were the simplest

units of energy, but it assumed electrons without accounting for the cause of their organisation. Emergence, and other philosophies of organism assumed that an organism must always be a unity of simple objects or events. Thus most organic theories see unity emerging out of a primordial multiplicity. Whitehead argues that this is a violation of the ontological principle. Such a position would mean that what emerged was different from what was given. Furthermore, the emergent view leads to determinism, because the unity must be something imposed upon the given diversity.

Given the organic nature of single events, Whitehead says that they can form organic societies. These organic societies become self-conscious, because a society intensifies the organic nature, i.e. the unity and diversity, of the events composing it. In following Chapters we will give attention to the development of this formulation.

Whitehead's formulations do not deny the Law of the Conservation of Energy. He is not proposing that the organisation into a society requires a new form of energy, e.g. élan, entelechy. The society is made up only of the elements which compose it. His system does, of course, refute the present interpretation of entropy; but, as we have already pointed out, the concept of entropy itself says nothing about the source of activity.

In many ways Whitehead's formulation agrees with Varisco's point that the activity of the universe divides itself into spontaneous centers. However, as the centers are spontaneous Varisco saw no way to account for permanence. It is the absolute pole in Whitehead's system that accounts for

the required permanence.

The term absolute refers to the pole of unity or the mental pole of God. God's mental pole is a unity of all organic relatedness. The mental pole of God is complete within itself as is a single event or entity. However, God is an entity which participates in all organic societies, and in this regard his mental pole has two functions for the societies. First, it assures the permanence of the society by retaining the organisation achieved. Second it is the source of energy for the organisation of the society.

In Teilhard's system, for example, the organisation of events appeared to be created by the individual events giving up their "true" individuality in order to create a unity. Thus the individual was subordinated to the unity. Whitehead, however, says that because God is an entity which is a member of all societies, his absolute pole allows for organic-social-unity without the necessity of the events losing their individuality.

We have not yet justified Whitehead's conclusion that God is an entity who participates in all relationships. Such a discsssion must be delayed until Chapter XIX, when we take up the issue of creativity. However, the point is that the absolute pole provides for the organic-social-unities which we call self-conscious organisms. It does not, as Teilhard and Morgan imply, account for all unity. In Whiteheadian thought unity is present as a factor in single events quite apart from God's absolute pole.

What the point about unity finally means is that in Whitehead's system diversity continues to exist along with

unity. Therefore, process continues everlastingly. To understand an end to process, according to Whitehead, is to give up all possibility of accounting for the fact of activity.

Thus we now see how Whiteheadian thought fits into the context of scientific issues which influenced the rise of Process thinking. We have also demonstrated why the study of the understanding of the term absolute helps to accomplish this analysis. Now we must attempt to show how an understanding of the term absolute allows us to fit Process into a philosophical context. The foregoing Chapters leave many aspects of Process unclarified. This is because Process can be clearly presented only after both the scientific and philosophical issues have been spelled out.

PART II: THE TERM ABSOLUTE IN PROCESS EPISTEMOLOGY

CHAPTER X: From Metaphysics To Epistemology

Scientific mechanism held that a clear distinction could be made between conclusions reached upon experimental data and purely philosophical speculations. Consistency with the absolute physical laws was the boundary beyond which knowable "facts" became speculations. From the viewpoint of materialism all metaphysics was speculative.

However, beginning with the rise of neo-vitalism some scientists and philosophers were convinced that the physical laws could not account for documented "facts" about life in general and self-conscious life, i.e. mind, in particular. In the foregoing Chapters we looked at the evidence which supported this conclusion. Of course many of the earlier neo-vitalistic formulations were rejected by later Process thinkers. Nevertheless other vitalistic conclusions contributed to a radical re-thinking of cosmology, that culminated in such things as Whitehead's development of a dipolar universe.

Of particular concern to us was the fact that the various understandings of the term absolute served to guide us through the stages of development that occurred in the formulation of what is today called Process. On the one hand, respective to scientific thought, the various understandings of the term absolute were tied to the scientific concept that the activity in the universe could only be explained in terms of complementary aspects of true unity and true diversity. For example, the activities of organisms could not be explained

if activity is innate to matter and organised solely according to physical structures.

On the other hand, the new understandings of the term absolute meant that data, which mechanism would have called speculative were included in the category of knowable "facts." It is to the consideration of this point that we now turn. In particular we are concerned to see how the use of the term absolute sets the new limits of knowledge accepted as such by the men whose positions we have been considering.

As a preliminary definition we will say that "knowing" is one activity of "mind", and that epistemology is chiefly the study of that activity. Mechanism would have argued that the study of mental activity was merely a specialised form of the analysis of the activity of material particles; as all activity was absolutely determined by physical laws. Of course, if the physical laws are not absolute, then mental activity may not be subject to simple physical analysis. Indeed as Bergson, Ward, Teilhard and Whitehead, etc., suggested, conscious mental activity should serve as a model for activity in general. Of course, they widely disagreed as to what participated in this activity. The reason for the emphasis upon mind was that conscious mental activity alone appeared to illustrate true unity and true diversity. Furthermore, it was possible to develop a metaphysics using conscious mental activity as a model for universal activity.

However, there are many types of conscious mental activity, e.g. remembering, dreaming, learning, thinking, etc. All of these activities produce "knowable" data, but the data is clearly of different kinds. Therefore, a problem arises

as to how to evaluate mental data. The solution demands a theory of knowing -- an epistemology.

It is at the point of establishing a basis for the evaluation of mental data that the understanding of the term absolute becomes important. Unless activity is chaotic, there must be some principle whereby activity is organised. If the principle of organisation is absolute, as in the case of mechanism, then activity is determined by that absolute physical principle. Likewise, if mental activity is seen as ordered, there must be some principle which accounts for this organisation. If the principle of mental organisation is absolute, then knowing is predetermined. Of course, determinism is the very thing which Process argues cannot accompany activity. The move to a model of mind as the analogy for activity was an attempt to deny determinism. However, demonstrating that physical laws do not account for mental activity is not the same as proving that mental activity escapes determinism.

The point that knowledge of reality must be understood in terms of how the mind functions was a firmly established philosophical concept throughout the period of modern mechanism's development. Idealism, for example, had long held that knowledge of material order exists because mind exists. Therefore, to assume that material order would be unchanged in the absence of mind -- materialism's position -- cannot be supported from idealism's viewpoint.

Whitehead indicates that philosophy's emphasis upon mind had been a key factor in the separation of philosophy from modern science. He says,

> The three centuries, which from the epoch of modern science, have revolved round the ideas of God, mind, matter, and also of space and time in their characters of expressing simple location for matter. Philosophy has on the whole emphasised mind, and has thus been out of touch with science during the two latter centuries. But it is creeping back into its old-importance owing to the rise of psychology and its alliance with physiology.[175]

Until the rise of psychology and physiology, the procedures for the study of the mind had not been formulated in a way which the experimental sciences could accept as valid research methods. Of course, it is not unheard of for philosophy to have arrived at valid conclusions long before the techniques were developed to demonstrate the experimental validity of its conclusions. For example, atomic theories existed long before the empirical evidence for atoms was generally accepted by science. Likewise, as the study of the mind began its modern development, certain previous philosophical speculations began to find support.

As we have seen already the development of Process thought was closely tied up with the rise of the new sciences. Therefore, the connections which the new sciences established between the modern study of the mind and philosophical speculations on epistemology were of great interest to Process thinkers. In this regard, one tendency among early Process thinkers, that becomes obvious almost at once, is the attempt to take a traditional epistemology and use modern data about the mind to prove it.

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[175]Whitehead. Science And The Modern World. p.277.

As Process thinking develops the above procedure becomes less and less workable. While it is true that Process found traditional epistemological formulations valuable, one serious problem for Process was the use that some traditional epistemologies made of the concept absolute.

In view of what has been said, we can give a summary account of how epistemology fits in with the general topic of this paper. As the rise of the new sciences reopened links between science and philosophy, the scientific and philosophical influences on the development of Process thought must both receive consideration. However, the decision of Process that true unity and true diversity are essential to activity, which therefore cannot occur in a deterministic system, underlies the response made by Process to epistemological systems. In other words, how the term absolute is used by various systems is critical to Process. Nevertheless, the understandings of the term absolute in various epistemologies did aid Process in shaping its own use of the term. The use of the term absolute by mechanism was not acceptable to Process, but the rejection of this usage did not immediately suggest an alternative. Therefore, in Chapters XI through XIX we will show how the understanding of the role of the absolute in Process philosophies developed not only in response to scientific data, but also in response to epistemology.

A. Idealism And Realism

At the beginning of the rise of modern Process thought, Idealism was the dominant philosophical alternative to a materialistic position. R.B. Perry describes the situation

by saying,

> Positivism is philosophy driven into the camp of science by loyalty to the standards of exact research; romanticism is philosophy merged into religion through its interest in the same ultimate questions. These two tendencies determined the course of philosophy in the nineteenth century; and they are represented today by naturalism and idealism respectively.[176]

Therefore, it is not surprising that a renewed emphasis on mind encouraged a re-examination of idealism. Watson gives a helpful insight into late nineteenth century idealism when he remarks,

> I presume it will be admitted that the originator of the philosophical doctrine of Idealism was Plato, and that Plato conceived of the first principle of all things as reason (Nous) also maintaining that it is in virtue of reason, as distinguished from sensible perception, that man obtains knowledge of that principle. Now modern Idealism, as I understand it, agrees with Plato on these two points, and therefore its claim to the name does not seem either arrogant or unreasonable.[177]

For the sake of accuracy one should point out that in Watson's day there were two primary forms of idealism: Subjective and Objective. Subjective Idealism is traditionally represented by positions such as Berkeley's or Leibniz's, in which being depends upon the individual consciousness.[178]

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[176]Perry, Ralph Barton. Present Philosophical Tendencies. "A Critical Survey Of Naturalism Idealism Pragmatism And Realism With A Survey Of The Philosophy Of William James." (New York: Longmans, Green, And Co., 1912). p.38.

[177]Watson, John. Christianity And Idealism. "The Christian Ideal Of Life In Its Relations To The Greek And Jewish Ideals And To Modern Philosophy." (Glasgow: James MacLehose And Sons, 1897). p.xxiii.

[178]Broad, C.D. The Mind And Its Place In Nature. (London: Kegan Paul, Trench, Trübner & Co., Ltd., 1923). p.7.

The classic problem for this form of idealism is the difficulty in accounting for unity, or in accounting for how one mind is able to know another mind.

Objective Idealism is represented by Hegel and F.H. Bradley. "The central conception of objective idealism, in other words, is the conception of a super-personal, or impersonal logical consciousness."[179] This form of idealism certainly solves the problem of the unity of consciousness, but it leaves one with the dilemma of how to account for true diversity.

Of course, part of our purpose will be to explain what we mean by suggesting that the chief forms of idealism did not account for both true unity and true diversity. However, once this assertion is established, it will not be difficult to see that Process, owing to its understanding of activity, could not accept idealism.

Broad describes something of the Process concern about idealisms of the late nineteenth century when he says,

> The plain fact is that if the world be too much or too little of a unity there is not the least chance of our ever being able to understand it. If it were as pluralistic as Leibniz thought or as monistic as Mr. Bradley seems to have believed, I do not see how knowledge would be possible.[180]

The difficulty of reconciling the Process metaphysical assumption of the necessity of true unity and true diversity for the existence of activity with idealism, suggested that an alternative to idealistic epistemology was needed in order

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[179]Perry. Present Philosophical Tendencies. p.135.

[180]Broad. The Mind And Its Place In Nature. p.7.

to describe mental activity. As we will see, certain Process thinkers, therefore, began to investigate the possibilities of adopting some form of Realism. In essence Traditional Realism demanded that there be universals within nature, which are not effected absolutely by perception.[181]

In particular realism seemed to be a necessary complement to objective idealism. If the mind is the seat of unity and organisation, as objective idealism suggests, perhaps the diversity required for activity exists outside of the mind in nature. Unfortunately traditional realism had not been formulated to complement idealism, but rather to refute it. And in this refutation, as we will see, it ended by establishing diversity at the cost of unity.

The point to be made here is that, in dealing with the issue of the mind, Process sought an epistemology that allowed for both unity and diversity as complementary aspects of conscious mental activity. At this point there would be some justification for the suggestion that in establishing metaphysics Process had assumed an epistemology. This is undoubtedly true. However, it was through working with the data coming out of science that for Process the importance of the mind, and in turn of epistemology, became apparent. Therefore, in considering an aspect of the development of Process thought one is better off to begin with scientific issues and show how they led into traditional philosophical considerations.

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[181] ibid. p.20.

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[181] ibid. p.20.

B. Requirements For A Process Epistemology

In this Chapter we have implicitly suggested two requirements that an epistemology must meet, in order to satisfy the metaphysical formulations that come out of the development of Process thought. First there must be a principle of limitation which provides a standard of evaluation for mental data. Second mental activity must be composed of true unity and true diversity.

Before getting into considerations of the positions of various thinkers as regards epistemology, it will be helpful if we establish a provisional connection between these two requirements. Mechanism, for example, says that knowledge is limited to our understanding the structure and organisation of the absolute physical laws. Idealism has another principle of limitation. Perry describes this principle by saying, "Idealism is a form of spiritualism in which man, the finite individual, is regarded as a microcosmic representation of God, the Absolute Individual."[182]

In either case, the term absolute refers to the factor which determines the organisation of activity. Therefore, a correct understanding of the organisation of activity must be consistent with the predetermined nature of activity.

In the foregoing Chapters we suggested that the term absolute, used in the wider sense, referred to either an abstract physical principle, or to a "Given" the concrete content of which was a unity of all reality. Several times we have

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[182]Perry. Present Philosophical Tendencies. p.113.

pointed out that a concept of absolute unity, whether physical or spiritual, suggests a static condition within the universe. Both physics' understanding of entropy and spiritualism's concept of a "final" unity were implicit admissions that an absolutely unified state was devoid of activity. Nevertheless, both materialism and spiritualism assumed that at present activity occurs.

From a Process metaphysical viewpoint, the two traditional understandings of the wider meaning of the term absolute are inconsistent with activity. However, if one does not see this metaphysical problem, the term absolute used in either way implies a limitation imposed upon activity and not a denial of activity. Absolutely free activity is chaotic. Therefore, in order for there to be any organisation within activity, whether it be the organisation of physical activity into Laws or of mental activity into Ideals, the freedom of activity must have limits.

It is not difficult to see that unity, in the sense of wholeness, and limitation are associated concepts. "Limited," as used here, describes the present dynamic condition of the universe for a system whose use of the term absolute suggests ultimate predetermination.[183]

Thus just as Process accepts unity, it also, as we will see, accepts a principle of limitation. That is, it accepts a present dynamic condition of the universe that is also not chaotic. However, as Process has found it necessary to reformulate the term absolute, in order to allow for both true

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[183] Kant's Critique Of Pure Reason. p.116.

unity and true diversity, so the concept of limitation must also be evaluated by new standards.

Remembering that this discussion is merely provisional, we will conclude by making a connection between the concept of limitation and epistemology. Limitation is the category through which the quality of unity, i.e. totality, is known to the conscious mind. While materialism held the physical laws to be absolute and spiritualism made an ultimate unity absolute, knowledge of the precise nature of the physical laws or of the absolute unity was not available to consciousness at any present instant. What could be known was a reference to absoluteness in terms of limitation. This point is best clarified through the illustrations that appear in the following Chapters.

CHAPTER XI: F.H. Bradley's Objective Idealism

Objective idealism is ultimately spiritualistic rather than materialistic. That Bradley holds such a position is made clear by the following:

> Both nature and my body exist necessarily with and for one another. And both, on examination, turn out to be nothing apart from their relation. We find in each no essence which is not infected by appearance to the other.
>
> And with this we are brought to an unavoidable result. The physical world is an appearance; it is phenomenal throughout. It is the relation of two unknowns, which, because they are unknown, we cannot have any right to regard as really two, or as related at all.[184]

In keeping with a spiritualistic conception Bradley uses the term absolute to refer to a concrete unity of all reality.

> For me the Absolute is there to see that nothing in the world is lost. That effort which for our vision is wasted, passes over beyond our vision into reality and is crowned with success. Of all foolish criticisms (and they are many) which have been directed at the Absolute, the most foolish of all perhaps is that it is useless. And this does not mean that, whatever I do, it is all one to the Absolute. The Absolute is there to secure that everywhere the highest counts most and the lowest counts least. For it is at once the active criterion and the supreme power.[185]

We introduced the above quotation not only to demonstrate Bradley's use of the term absolute, but also to pick up the point that he refers to the "Absolute" as "the active criterion and the supreme power." In particular the Absolute is

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[184]Bradley. Appearance And Reality. p.265.

[185]Bradley. Essays On Truth And Reality. p.348.

the active criterion and supreme power of conscious activity -- sentient experience. Bradley says,

> Our conclusion so far, will be this, that the Absolute is one system, and that its contents are nothing but sentient experience. It will hence be a single and all-inclusive experience, which embraces every partial diversity in concord.[186]

Therefore, Bradley appears to have found the first requirement for a Process epistemology in objective idealism. The Absolute, i.e. unity , serves as a principle of limitation for the evaluation of conscious mental data. This point is made clearer when Bradley says,

> The end of truth is to be and to possess reality in an ideal form. This means first that truth must include without residue the entirety of what is in any sense given, and it means next that truth is bound to include this intelligibly... [187]

At this point we become especially interested in seeing how Bradley attempts to find the requirements for a Process epistemology within objective idealism. Therefore, we must see if Bradley meets the second requirement, by understanding conscious activity to be composed of true unity and true diversity. That he has some concept of activity has already been suggested through his reference to the Absolute as the "active criterion and supreme power."

Both by explicit testimony and also by implicit structural similarities, Bradley demonstrates that Hegel greatly influenced his own formulations.[188] What we will consider in

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[186]Bradley. Appearance And Reality. pp.146-147.

[187]Bradley. Essays On Truth And Reality. p.114.

[188]For example. Bradley. Appearance And Reality. p.552.

the following pages is that Bradley adopts something like a Hegelian view about consciousness as being composed of unity and diversity. However, Bradley sees that there are certain problems in establishing the precise significance of the diversity which objective idealism discusses. Therefore, while Bradley persists in rejecting any alternative to idealism, his awareness of its weakness has two important results for our study. First Bradley's view functions as an example of why objective idealism cannot serve Process as an epistemology. This point is important because, as we will see, objective idealism comes very close to agreeing with Process. Second, the rather subtle weakness, which Bradley uncovers, helps to pin-point idealism's understanding of the Absolute as one reason for idealism being ultimately unacceptable to Process. The place at which to begin is a brief summary of the relevant points of Hegelian thought.

It is quite generally agreed that one of Hegel's chief contributions to philosophy was his so called "dialectic." With regard to Bradley's work we are especially interested that the dialectic occurs between unity and diversity, and is also what Hegel calls "Force."

In The Phenomenology Hegel says,

> In other words, the elements set up as independent pass directly over into their unity, and their unity directly into its explicit diversity, and the latter back once again into the reduction to unity. This process is what is called 'Force'.[189]

Hegel goes on to call force the essential law of reality.

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[189]Hegel, G.W.F. The Phenomenology Of Mind. trans., J.B. Baillie. (London: Swan Sonnenschein & Co., Limited, 1910). Vol. I. p.128.

> The law is thereby present in a twofold form. In one case it is there as law in which the differences are expressed as independent moments; in the other, it is in the form of a simple withdrawal into itself, which again can be called Force, but in the sense not of repressed force, but force in general, or the concept of force, an abstraction which absorbs the distinctions involved in what attracts and is attracted.[190]

For Hegel Force is not a physical principle, rather it is the organisation of Geist, i.e. mind or spirit.[191] Finally, and of particular interest to us is the fact that spiritual reality for Hegel is consciousness.[192]

Therefore, consciousness appears to have the very characteristics of force. Hegel says,

> Reason is the conscious certainty of being all reality. This is how Idealism announces its principle. Just as consciousness assuming the form of reason immediately and inherently contains that certainty within it, in the same way idealism also directly proclaims and expresses that certainty.[193]

Clearly Hegel suggests that conscious activity is composed of unity and diversity. The reason for this conclusion is briefly stated in the following:

> In this way, just as formerly ultimate Reality

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[190] ibid. p.145.

[191] Hegel. The Phenomenology. Vol. II. p.436. It is perhaps important to make mention of the translator's note: "The term 'Spirit' seems better to render the word 'Geist' used here, than the word 'mind' would do. Up to this stage (referring to Vol. I) of experience the word 'mind' is sufficient to convey the meaning. But spirit is mind at a much higher level of existence." p.492.

[192] ibid. p.494.

[193] Hegel. Phenomenology. Vol. I. p.224.

> was expressed as unity of thought and extension, it would here be interpreted as unity of thought and time. But distinction left to itself, unresting, unhalting time, really collapses upon itself; it is the objective quiescence, the stable continuity of extension; while this latter is pure identity with self -- is Ego.[194]

However, the diversity in conscious activity is not that of a number of independent "consciousnesses" united by some further principle. Instead Hegel understands that a single universal consciousness divides itself. "God is Himself consciousness, He distinguishes Himself from Himself within Himself, and as consciousness He gives Himself as object for what we call the side of consciousness."[195]

In spite of his belief in a single consciousness, Hegel holds that the principle of "Freedom" allows for the "self-conscious" awareness of individual minds. Of Freedom Hegel says, "Freedom considered abstractly means that the mind is related to something objective which is not regarded as foreign to its nature, its essential character is the same as that of truth, only that in the case of freedom the negation of the difference of Otherness has been done away with and absorbed in something higher, and thus it appears in the form of Reconciliation."[196] And in explaining the concept of reconciliation he says, "All that we mean by reconciliation, truth, freedom, represents a universal process, and cannot

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[194]Hegel. Phenomenology. Vol. II. p.816.

[195]Hegel, G.W.F. Lectures On The Philosophy Of Religion. trans., E.B. Speirs and J. Burdon Sanderson. (London: Kegan Paul, Trench, Trübner, & Co., Ltd., 1895). Vol. II. p.329.

[196]ibid. p.316.

therefore be expressed in a single proposition without becoming one-sided."[197]

Therefore, the content of self-consciousness is none other than consciousness itself.[198] The process of unity becoming diversity and diversity reconciling itself to unity is the twofold form of Force and the two-sided proposition of universal process.

In turning again to Bradley we may quickly establish three very important similarities between his formulations and those of Hegel. First reality for Bradley is dynamic rather than static. It is active -- made up of events.[199] Second active reality must, according to Bradley, be made up of unity and diversity. "We have to take reality as many, and to take it as one, and to avoid contradiction."[200] Third consciousness must be likewise made up of unity and diversity as it is reality. "Being and reality are, in brief, one thing with sentience, they can neither be opposed to, nor even in the end, distinguished from it."[201]

Indeed, Bradley's writings go on to suggest that, along with Hegel, he accepts that God (Bradley would also use the term Absolute) divides to produce diversity. "We do not know," says Bradley, "why or how the Absolute divides itself into centers, or the way in which, so divided, it still

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[197] ibid. p.347.

[198] Hegel. Lectures On The Philosophy Of Religion. Vol. III. p.114.

[199] Bradley. Essays On Truth And Reality. p.30.

[200] Bradley. Appearance And Reality. p.33.

[201] ibid. p.146.

remains one."[202] And, similar to Hegel's view, Bradley understands that the diversity is absorbed back into the unity.[203]

Bradley observes that during the dialectical process of universal activity individual conscious minds are a more decisive diversity than the above formulation appears to allow. He says,

> The plurality of presentations is a fact, and it, therefore, makes a difference to our Absolute. It exists in, and it, therefore must qualify the whole. And the universe is richer, we may be sure, for all dividedness and variety. Certainly in detail we do not know how the separation is overcome, and we cannot point to the product which is gained, in each case, by the resolution. But our ignorance here is no ground for rational opposition.[204]

The particular point is that no explanation is available for the positive "gain" made in the universe because of the dialectical process taking place. The observation may be made that the division of the unity into diversity appears pointless unless this somehow enriches the universe. For unity to divide itself, and return to itself, does not immediately suggest that the overall process has achieved anything. While Bradley believes that a rational understanding of the universe must be formulated in terms of such a process, he nevertheless is concerned because this formulation leaves man ignorant of any final gain.

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[202] ibid. p.527. [203] ibid. pp.480-481.

[204] ibid. p.226.

Of course, one is sometimes free to argue for a limit to man's metaphysical understandings. However, on the issue of the significance of diversity ignorance raises an epistemological problem as Bradley points out:

> Unless the Reality itself enters into the process of events, unless it itself is what it becomes there, unless it itself discovers itself to itself and us, and takes on a change from that discovery -- the Reality remains outside of knowledge, and itself is unreal. On the other hand if that which is discovered is not found, if that which appears is not revealed --if in short the thing, which we get to see, was not really there-- then reality and knowledge once more are illusory. But we are unable to combine these partial truths so as to understand in detail how both of them go to make the Universe.[205]

In other words, the knowledge content of individual minds seems to be so ultimately diverse, that it is difficult to document that all minds share an underlying consciousness. In that case reality appears to remain outside of knowledge. However, the very point of Idealism is that reality is mental. "The identity of truth, knowledge and reality, whatever difficulty that may bring, must be taken as necessary and fundamental."[206]

There is, of course, the option of suggesting that what seems to be the case does in fact occur, namely, that the process of individual events of knowing somehow qualifies consciousness as a whole. However, the understanding of the term absolute, as referring to a unity of all reality, prohibits this conclusion. Bradley says,

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[205] Bradley. Essays On Truth And Reality. p.337.

[206] ibid. p.113.

> God, whether a 'person' or not is, on the one hand, a finite being and an object to man. On the other hand, the consummation, sought by the religious consciousness, is the perfect unity of these terms. And, if so, nothing would in the end fall outside God. But to take God as the ceaseless oscillation and changing movement of the process is out of the question.[207]

As might be expected, Bradley's decision to adopt idealism, in spite of the difficulty just outlined, grows out of his effort to use it to meet the issues surrounding diversity. In particular he suggests that while rational formulations of reality demonstrate a diversity which cannot be reconciled to a unity of consciousness, knowledge of the human experience of "feeling" comes far closer to establishing that the dialectical truth of reality is one with knowledge.

At first the adoption of a model of experience may appear to be a move away from idealism's traditional position; Perry points out that this is not so:

> Reality is defined in terms of an absolute cognitive consciousness, that is both prior to things known in the idealistic sense, and also a maximum or ideal, in the absolutist sense. The Absolute Good of Plato, and the Infinite Substance of Spinoza, are thus replaced by the 'Absolute Ideal' of Hegel; and by such contemporary conceptions as Professor Royce's 'absolutely organised experience inclusive of all possible experience' or 'the absolute self-fulfillment, absolutely self-contained significance of the 'one and only one' ideal experience' described by Mr. Joachim.[208]

Concerning feeling Bradley says,

> By feeling, in short, I understand, and, I believe, always have understood, an awareness which, though non-rational may comprise simply in itself an indefinite amount of difference. There are no distinctions in the proper sense, and yet there is a many

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[207] Bradley. Appearance And Reality. p.446.

[208] Perry. Present Philosophical Tendencies. p.175.

> felt in one. We may thus verify even here what we may call, if we please, an undeveloped identity. And, not only this, but such a whole admits in itself a conflict and struggle of elements, not of course experienced as struggle but as discomfort, unrest and uneasiness.[209]

Feeling he argues is complete; it is total. There is nothing that is of any significance to life which is outside of feeling. Feeling is experienced as a whole, and it is also experienced in any number of distinctions. While it is true that one has not experienced all of the distinctions possible within feeling, there is never anything outside of the experience of feeling in general. To feel is to experience all of reality.

It is true, admits Bradley, that we talk of being aware of a particular feeling, which is immediate. However, concerning this idea he says,

> It escapes from all attempts to exhibit it by analysis as one or more elements in a relational scheme, or as the scheme itself, or as a relation or relations, or as the sum or collection of any of these abstractions. And immediate experience not only escapes, but it serves as the basis on which the analysis is made.[210]

In summary, knowledge, which is the truth about reality, is reached through the experience of feeling. What we know are feelings about objects rather than the objects themselves. This, as Perry pointed out, is not in principle different from saying that "ideals" are the content of knowledge.

The unity of feeling, for Bradley, continues to be the

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[209] Bradley. Essays On Truth And Reality. p.174.

[210] ibid. p.176.

absolute whole of reality.[211] Thus he does not demonstrate a new usage of the term absolute. However, he sees the problems involved with the term, and his introduction of the concept of feeling is clearly an effort to provide a model for epistemology, which includes an experiential basis for individual knowledge of absolute reality. Reason, alone, as we saw Bradley argue, cannot formulate how individual knowledge of absolute reality is possible.

Therefore, Bradley's work shows that in principle objective idealism is sympathetic to the Process requirements for epistemology. Indeed, it is fair to say that Bradley's obvious tendencies toward Process may, in part, account for his adoption of idealism. However, Bradley is more aware of the full implications of the concept that conscious activity must include both unity and diversity, than are idealists such as Hegel. Bradley even admits that his concept of absoluteness cannot be reconciled with this requirement. His efforts to modify this problem are not finally successful from the viewpoint of Process thinkers. However, his works are important in bringing into focus how the traditional understanding of the term absolute hinders certain kinds of epistemological formulations.

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[211] ibid. p.329.

CHAPTER XII: Neo-Vitalism's Epistemology

Certain discoveries in biology, most of which were carefully discussed in the earlier Chapters, led men such as Bergson and Driesch to conclude that mechanism's concept of physical laws was quite inadequate to account for life's activity. Because of this, they found themselves rejecting physical activity in favour of some alternative metaphysical source of activity. Thus they held that the activity of life, especially self-conscious life, was not limited by the structure of matter, and that conscious activity required both unity and diversity, supplied by some vital force.

From the viewpoint of epistemology the problem for vitalism is to establish some principle of limitation, which will keep conscious activity from being seen as chaotic, and at the same time allow for diversity. On the issue of limitation objective idealism and mechanism were really quite similar. Both held that activity, whether spiritual or physical, was ultimately determined. However, as we saw in Bradley's presentation, the ultimate determination of activity presents a problem for the significance of diversity.

Therefore, to avoid determinism and establish true diversity Bergson not only rejected the absoluteness of physical laws, but also adopted an "intuitional" epistemology, that had elements contradictory to idealism's understanding of the term absolute. Likewise Driesch, seeing grounds for why a principle of limitation is necessary for conscious activity,

but wishing to avoid some of the usual implications of the concept of absoluteness, had some important insights about the topic of epistemology.

A. Henri Bergson's Intuitionalism

Bergson holds that intuition, rather than intellect, is the more important aspect of consciousness. According to Bergson, rational analysis, which is the product of the intellect, divides reality into a series of unrelated points.

> In short, the world the mathematician deals with is a world that dies and is reborn at every instant -- the world which Descartes was thinking of when he speaks of continued creation. But, in time thus conceived, how could evolution, which is the very essence of life, ever take place? Evolution implies a real persistence of the past in the present, a duration which is, as it were, a hyphen, a connecting link.[212]

Some have objected that Bergson is an example of someone who has totally misunderstood analysis. The misunderstanding of analysis is one of the criticisms made by the "New Realism" against intuitionalism. Spaulding for example says of Bergson's attack on analysis, "Any party making this specific attack invalidates his own attack and tacitly accepts the validity of conceptual analysis by talking about evolution, process, and change."[213]

The following serves us as Bergson's response to an observation such as Spaulding's:

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[212]Bergson. Creative Evolution. pp.23-24.

[213]Spaulding, Edward Gleason. "A Defense Of Analysis." The New Realism. (New York: The Macmillan Company, 1912). p.234.

> On this point we are bound to be either vague or arbitrary so long as we see in the intellect a faculty intended for pure speculation. We are then reduced to taking the general frames of the understanding for something absolute, irreducible and inexplicable. The understanding must have fallen from heaven with its form, as each of us is born with his face. This form may be defined, of course, but that is all; there is no asking why it is what it is rather than anything else. Thus it will be said that the function of the intellect is essentially unification, that the common object of all its operations is to introduce a certain unity into the diversity of phenomena, and so forth. [214]

In view of his position, what Bergson attempts to do is to show that while a factor of limitation is necessary in order to avoid the conclusion that conscious activity lacks order, this factor does not interfere with the reality of diversity.

For Bergson, the limitation necessary for meaningful activity does not have to be static. He says, "While the ancient conception of scientific knowledge ended in making time a degradation, and change the diminution of a form given from all eternity -- on the contrary, by following the new conception to the end, we should come to see in time a progressive growth of the absolute, and in the evolution of things a continual invention of forms ever new."[215]

"Becoming" is the name of the movement which, for Bergson, allows for the change in the 'absolute,' i.e. the principle of limitation. Bradley, we may recall, said that

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[214] Bergson. Creative Evolution. p.160.

[215] ibid. p.364.

"the plurality of presentations must qualify the whole;"[216] and Bergson argues further that the 'absolute' is actually changed. Bergson's most characteristic illustration of becoming is duration, which in the individual consciousness appears as intuition.[217]

Bergson regularly uses biocentric illustrations of individual consciousnesses functioning as intuition. Some of his clearest examples center around a discussion of the nature of the intensity of a feeling. He says, "To say that love, hatred, desire, increase in violence is to assert that they are projected outwards, that they radiate to the surface, that peripheral sensations are substituted for inner states: but superficial or deep-seated, violent or reflective, the intensity of these feelings always consists in the multiplicity of simple states which consciousness dimly discerns in them."[218]

In other words, Bergson is suggesting that feeling illustrates that the intuitive or durational aspect of consciousness is additive. Intensity, for example, is a new factor created by the addition of sensation to sensation. However, the addition does not result in a series of isolated feelings -- intensity is a single feeling. "Continuity of change, preservation of the past in the present, real duration -- the living being seems, then, to share these attributes with consciousness."[219]

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[216]Bradley. Appearance And Reality. p.226.

[217]Bergson. Creative Evolution. p.52.

[218]Bergson. Time And Free Will. p.31.

[219]Bergson. Creative Evolution. p.24.

Furthermore, as we discussed before, the addition, illustrated by intensity, could not have been predetermined. The particular unity produced could only have come about when it happened. Otherwise one would be forced to suggest that the feeling existed before it was felt, and that Bergson suggests is impossible. This should help us grasp the full implications of Bergson's statement:

> Let us seek, in the depths of experience, the point where we feel ourselves most intimately within our own life. It is into pure duration that we then plunge back, a duration in which the past, always moving on, is swelling unceasingly with a present that is absolutely new.[220]

The point is that the unity of the past serves as a limitation of present conscious activity, without absolutely determining that activity. New events are included in the durational past, which nevertheless retains the inner necessity of being a present unity of all that is past. Both because of its inner necessity, and because it serves as a principle of limitation for conscious activity, the term absolute may be applied to duration. However, used in this reference the term absolute does not preclude diversity.

Thus for Bergson the concept of absoluteness is retained as being necessary to account for meaningful conscious activity. However, Bergson insists that activity also depends upon real diversity. And to prove that real diversity does in fact take place, Bergson points to life. Indeed, as we said earlier, Bergson associates activity only with life and

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[220] *ibid.* p.210.

not with the material world. If one considered only the material world, there would be no grounds for suggesting the reality of diversity, and idealism and mechanism would be justified.

Later Process thought will continue to agree with Bergson that idealism did not provide for real diversity -- and it therefore could not account for activity. However, as we will see shortly, not all Process philosophers accepted the idea that real activity could only be discovered in life; or to be more specific, that real activity could only be found in life as Bergson understood it.

B. Hans Driesch's "Windows Into The Absolute"

Hans Driesch served us as our chief example of a pure vitalist. Of Driesch's epistemology Broad says,

> If the hypothesis of an entelechy is to explain anything, we must suppose that an entelechy is a very superior mind or the superior part of the mind which animates the organism. The theory insinuates itself into our confidence by pretending that the entelechy is so lowly a mind as scarcely to deserve the name; but it can explain the facts only if it supposes the entelechy to be so exalted a mind as to deserve the name of a 'god.'[221]

It is too soon to comment generally on Broad's opinion. However, it is true that Driesch sees entelechy, i.e. the activity of life, as functioning within certain limits. This is especially true of conscious activity. To what degree this limiting aspect of activity functions as an all-controlling 'god' can best be discovered by looking at what Driesch

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[221]Broad. The Mind And Its Place In Nature. p.86.

calls "three windows into the absolute." The three windows are observations about reality, which to Driesch demonstrate that some principle of limitation is necessary, in order to account for the fact that organisms act independently only within certain bounds.

Morality is the first window. "For morality towards phenomena or amongst phenomena which are merely 'phenomena' to my Ego exclusively would be absurd. Morality therefore implies absoluteness, independence of the Ego -- though this independence is absolutely unintelligible to me in any detail."[222]

In other words Driesch suggests that what we call morality cannot have developed among organisms by sheer chance. Some principle must limit the activity of independent organisms toward a moral order. However, as a biologist Driesch cannot observe any such principle. He sees that in one sense both Darwinism and Lamarckism are correct in understanding organic forms as forma accidentalis.[223] All of human history, says Driesch, attests to the dilemma that one should be able to show the single limiting principle behind evolution, and yet such a principle does not seem to operate. Driesch points out, "Human history, on the other hand -- that is, the only historical process concerned with life that is actually known to have occurred -- could not teach us anything of an elemental character, since human history, at present at least, did

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[222]Driesch. Philosophy Of Organism. Vol. II. p.361.

[223]Driesch. Philosophy Of Organism. Vol. I. p.293.

not appear to us as a true evolution, but only as a sum of cumulations, and the singularities of this history, taken by themselves, could only be of practical or emotional interest." 224

We can next look at Driesch's second window into the absolute.

> The second 'window into the absolute' is constituted by the fact, already mentioned on a former occasion, that there is such a thing as the unity of subjective experience in general and of memory in particular; in other words, the fact that not only self-consciousness itself endures, but also something is presented to consciousness. This tends to prove the absolute existence of an unconscious or super-conscious basis of the conscious ego.[225]

In agreement with idealism, Driesch seems to say that "categories", in the Kantian sense, are necessary in order to allow consciousness to make order out of chaos.[226] "Categories," says Driesch, "are brought to consciousness by only a limited amount of acquaintance with Givenness, but, as soon as they <u>are</u> brought to consciousness, they direct consciousness in all future experiences of Givenness; the systematisation of nature by means of categories thus becomes a 'problem'."[227]

Driesch does not deny that a particular stimulus may be necessary in order to excite memory. However, the memory excited appears always to be totally out of proportion to the

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[224] <u>ibid</u>. pp.323-324.

[225] Driesch. <u>Philosophy Of Organism</u>. Vol. II. pp.361-362.

[226] <u>ibid</u>. p.307. [227] <u>ibid</u>.

stimulus given. Thus there must be forms that are unconscious or super-conscious.

Finally Driesch describes the third window into the absolute:

> Therefore, to put it briefly, the contingency of the immediately given phenomena, as far as their non-aprioristic part, that is to say, as far as 'sensations' or 'presentations' come into account, combined with the immanent coherence of this contingency in itself, tends to prove absoluteness with regard to the 'It'. 'It' is now here and now there, now one thing and now another. This is all with respect to the Ego, it is true; but not by or from the Ego.[228]

The second window suggests that there are mental categories, and the third window, on the other hand, suggests that there are universals or forms.

According to Driesch the conscious activity of organisms appears to be limited by a moral principle, categories and universals. Yet biological evidence suggests that the evolution of organisms occurred by chance. The two observations are clearly contradictory. The first suggests that entelechy functions as an absolute principle of organisation for conscious activity. The second suggests that the activity of life demonstrates true diversity. Broad appears to have believed that Driesch ultimately puts greater weight on the first understanding of entelechy. However, it is more accurate to see Driesch as alternating between the two views, without reaching a final resolution.

Both Bergson and Driesch agree that conscious activity

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[228] ibid. p.363.

requires a principle of limitation. Driesch's three windows into the absolute are very helpful in explaining why this is true. However, in terms of meeting the demand for such a principle, and at the same time accounting for the diversity which neo-vitalism accepts as essential to activity, Bergson alone arrives at a well developed formulation. He concludes that duration can serve as a principle of limitation, and nevertheless participate in the universal process of events.

Bergson's use of the concept absolute does not suggest an abstract physical principle nor a given unity whose concrete content is all of reality. His use of the concept absolute has both an abstract and a concrete aspect. The fact that the unity of the past moves into the present is an abstraction. On the other hand, the past itself is a concrete unity.

As the abstract principle is a spiritual one, and as the unity is not of all reality, Bergson uses the term absolute in a new way, not unlike Whitehead's metaphysical use of the term discussed in Chapter IX. However, Bergson is here developing an epistemology not a metaphysics. Therefore, what he says applies only to conscious activity. Behind this epistemology lies, as we have seen, a metaphysical dualism which is not acceptable to Process. However, the point of greatest interest to us is that, unless the principle of limitation participates in the process of events, i.e. is changed by finite events, diversity is not real.

CHAPTER XIII: Spiritual Evolutionism's Epistemology

Ward and Hocking agree with Bergson that the principle of limitation must participate in the process of events, but they give a somewhat different account of this participation. Bradley said that we have no idea as to the outcome of the process by which the absolute whole is enriched by a plurality of conscious presentations, although he assured us that the variety of human experience must have some meaning. Bosanquet makes it clear that the significance of diversity is an important issue for Critical Idealism. He says, "The general formula of the Absolute, I repeat, the transmutation and rearrangement of particular experiences, and also of the contents of particular finite minds, by inclusion in a completer whole of experience, is a matter of everyday verification."[229]

Ward and Hocking, in keeping with the position of critical idealism, introduce the concept of "individualisation" in order to give meaning to finite activity and thereby establish diversity. Driesch, as we saw in our last Chapter, accepted the necessity of diversity, but believed that conscious activity -- entelechy -- required a principle of limitation, somehow inconsistent with participation in free events. Ward suggests that this problem does not arise if universal conscious activity is understood to be the activity

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[229]Bosanquet, B. The Principle Of Individuality And Value. (London: Macmillan and Co., Limited, 1912). p.373.

of a single organism. Driesch, of course, thought of universal activity as a mere force.

The activity of any organism, as vitalism demonstrated, depends in part upon diversity. Therefore, if universal conscious activity is the activity of a single organism, a diversity within that organism would be required for its activity. Furthermore, if the universe is a single organism, whose activity is what we call consciousness, matter is not excluded from consciousness as Bergson supposed.

A. James Ward's Understanding Of The Individual

Ward was greatly influenced by Bradley and the Hegelian tradition. He stood with them as a general critic of materialism. His particular objection to materialism was the fact that it allowed no place for the meaningfulness of finite conscious activity. "A science," he says, "that can only offer us as its ultimate scheme of the universe the inconceivable ideal of continuous motion in an unvarying plenum, is surely as incompetent as arithmetic or geometry to furnish a concrete presentment of a real and living world."[230]

Ward's anti-materialism does not mean a total rejection of all mechanistic insights about activity. He merely argues that material laws are not the source of conscious activity. Bosanquet expresses what Ward would agree are the valid insights about mechanism:

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[230]Ward, James. Naturalism And Agnosticism. (London: Adam And Charles Black, 1906). Third Edition. Vol. I. p.151.

> With the externality of nature is bound up the conception of Mechanism. The essence of it is that the world consists of elements, complete in themselves, and yet determined in relation to elements beyond them. If not complete in themselves the elements would be at the mercy of the whole, and their claims to be self-sufficient components would be gone. If not determined by others, the elements would not manifest even the appearance of entering into and constituting an orderly world.[231]

With this suggestion in mind we may look at Ward's epistemology. The chief point in his epistemology is that finite conscious activity is meaningful because the universal consciousness is organic.[232] On the highest level this implies an organic relation between God and nature, spirit and matter.

The basis of Ward's argument for the organic nature of universal consciousness is his analysis of human experience. He says,

> We cannot, of course, recall the beginning of our own experience, nor can we, either by observation or inference, attain to any conception of an experience which should be the simplest possible. But all that we know, directly or indirectly, warrants the statement that all experience is process; not merely change, not merely 'felt change', but felt interchange. Broadly speaking every objective change, every change of perception, entails a subjective change; and every subjective change, an objective change.[233]

Ward is speaking of the knowing experience as an organic unity. That is, the subject and the object form a unity in which diversity has meaning. The new relation between subject and object is a new knowing experience.[234] Thus by calling

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[231] Bosanquet. Individuality And Value. p.73.

[232] Ward. Naturalism And Agnosticism. Vol. II. pp.111-112.

[233] ibid. p.130. [234] ibid. pp.111-112.

the universal consciousness organic, Ward is suggesting that it provides a unity in which individual finite consciousnesses have significance. N.O. Lossky also speaks of consciousness as organic, and he describes this subject-object interaction by saying:

> Such consciousness of the object is not due to the causal action of the object upon the subject's body and upon his mental life, for if it were, the subject could know only his own mental states produced in him by the object. Consciousness of the object is the result of a peculiar non-causal relation between the conscious subject, and the object of which he is conscious; given this relation, the subject contemplates the object immediately, has it actually 'in view'.[235]

Not only does an ultimate organic unity allow meaningful diversity, but it actually promotes it. Self-conscious individuality begins by the finite organism establishing itself as independent, within the unity of its environment. For example, history, says Ward, is made up of the unique acts and deeds of individual centers of experience. "Further, it is not the intrinsic nature of objects but their value for the particular individual that immediately determines each one's attitude towards them; and as the individuals vary, so do their interests and pursuits."[236]

Lossky describes his own similar position by saying,

> If the direction of material processes changes under the influence of an entity's strivings and purposes, it means that under the influence of the mental factor matter acquires a high degree of plasticity. Even the most general

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[235]Lossky, N.O. The World As An Organic Whole. trans., Natalie A. Duddington. (Oxford: The University Press, 1928). p.10.

[236]Ward. The Realm Of Ends. p.18.

> laws of material things such, e.g., as the law of entropy, may prove to be inapplicable to animate matter; it may be that life is an ectropic process.[237]

However, the conscious individuality of the entity (recalling our analysis of consciousness) is in fact the unity of the subject and the object. Thus with the greater degree of individuality, there is a corresponding increase of unity. Individuality is an increase in relations.

The movement towards unity through individualisation is the limitation which organises finite conscious activity as a whole, and allows its contribution to the universe. But the particular unity of a given self-conscious entity is indeed something new. On one side this agrees with idealism, because the formation of unity is impossible without an absolute principle of unity. "This unity of the cosmos compels us to recognise a super-cosmic principle, the Absolute, the source of a plurality of substances which form a unity more intimate than the abstract unity of the world, and nevertheless remain free in their activity."[238]

On the other side, this view is intended to satisfy pluralism. Ward says,

> The standpoint of pluralism in our day is, as we have seen, fundamentally historical. It is a philosophy of becoming rather than being. It holds -- as has been said of the philosophy of Aristotle -- that 'the ultimate metaphysical explanation of existence must be sought not so much in a prius out of which things emerge as

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[237] Lossky. The World As An Organic Whole. p.151.

[238] ibid. p.73.

in the goal towards which they move'.[239]

The goal of Ward's process is an ultimate organic unity of meaningful individuals, within the single universal organism. Furthermore, this formulation goes ahead to speak of the development toward organic unity as spiritual. An entity which reaches a high level of individualisation may realise that relations are, in fact, internal to the cosmic organism. Such an entity would no longer need to depend on establishing its individuality through the setting up of independent purposes and goals, directed outside of that organism.

Lossky clearly describes his interpretation of such an entity,

> Imagine an entity attaining such a degree of spiritual development that it realises the uselessness of the selfish strivings of the kingdom of enmity and renounces every kind of disharmonious manifestation in relation to all other beings. Such an entity would have no occasion to engage in the elementary processes of attraction and repulsion which create an impenetrable, i.e., a material body. With the cessation of these processes the material body of the entity would disappear; it would acquire a new transfigured body, not material in character, and enter the highest realm of being, the kingdom of the Spirit.[240]

It is the felt interchange between subject and object which makes conscious activity possible. The individual subjects are the real diversity, proven by the fact that in consciousness they are able to establish new relations.

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[239]Ward. The Realm Of Ends. p.138.

[240]Lossky. World As An Organic Whole. p.151.

However, the object of these relations always enters into the unity, and is not known outside of a unity. This unity between subject and object is in fact the unity of the absolute consciousness itself. Thus in all conscious experience, one experiences the Absolute. Now we can more fully understand what Bosanquet means when he says,

> We all of us experience the Absolute, because the Absolute is in everything. And as it is in everything we do or suffer, we may even say that we experience it more fully than we experience anything else, especially as one profound characteristic runs through the whole.[241]

The above should also be read as a criticism of idealism, of the Kantian type, for example. Ward, speaking along the same lines as Bosanquet, objects to the Kantian categories, saying that they are merely an idea of our reason, not of our experience. The Absolute, says Ward, was the object of our experience long before reason developed the category of wholeness -- "... man had lived long and thought deeply that this idea of the One or the Absolute first dawned."[242]

According to Ward the term absolute refers to an organic unity and not to a simple unity. Therefore, finite conscious activity, made up of unity and diversity, reflects the inner nature of the absolute consciousness. Certainly this formulation provides a principle of limitation, but it is not so clear that the principle of limitation becomes consistent with true diversity, by participating in the process of events.

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[241]Bosanquet. The Principle Of Individuality And Value. p.27.

[242]Ward. The Realm Of Ends. p.432.

It is true that if one considers the evolution of organisms, the more complex an organism becomes the more specialised (individualised) become its parts. Furthermore, a highly complex organism with many very specialised parts is more unified, in that the existence of the whole organism depends upon the proper functioning of all its parts.

In these two respects there does appear to be some analogy between the activity of a single universal organism and finite concsious activity. Up to a point the number of elements making up the consciousness of an individual entity seem to increase that entity's awareness of himself as an individual. On the other hand, in the process of becoming an individual, an entity must become increasingly aware of his relatedness to other elements in his environment.

However, Ward argues that at some point the finite entity becomes aware that its individuality is merely an aspect of a single universal consciousness. With this awareness the entity no longer has need of separate individuality, but it discovers its true identity in union with the absolute whole. This outcome is completely determined, and Ward merely says that the stages in its realisation are not determined.

The above must lead us to conclude that finite conscious activity is merely a temporary state in the universe. If finite consciousness is a temporary state, it is difficult to understand how it can be considered a model for absolute consciousness. Indeed, in Ward's formulation the Absolute or principle of limitation does not seem to participate in finite conscious activity at all, because ultimately it is not effected by finite consciousness. The ultimate unity will be

achieved quite apart from the activity of any particular diversity. Hocking, to whom we turn next, speaks to this problem.

B. W.E. Hocking's The Element Of Mysticism

The factor to be considered here is that the absolute unity, of which Ward spoke, is not merely a future state. Thus far we have discussed the spiritual development as a process toward wholeness. However, wholeness, according to Hocking, cannot be understood as a process. What is demanded for "worship" is something present in the now.[243]

Such a demand is met in the experience of consciousness itself. Bosanquet, agreeing with Hocking, says,

> We have seen that Finite Consciousnesses cannot be the ultimate directions or constituents of the universe. They and their subjective teleology are appearances at a certain stage; they rest on arrangements below them; they indicate in every feature fuller forms of totality above them. Finite consciousness whether animal or human, did not make its body, and does not set the greater purposes to its world. Something greater and more inclusive than itself both operates through it and reveals itself to it.[244]

Thus, it is argued, the concept and meaning of wholeness is within consciousness. It is a logical consequence of all experience. In practical terms Hocking therefore describes how this experience of wholeness is treated in an act of worship:

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[243]Hocking. The Meaning Of God In Human Experience. p.31.

[244]Bosanquet. The Principle Of Individuality And Value. p.221.

> All good things do doubtless belong together; but each good thing, we recognise, is to be pursued separately. The difficulty lies in inferring from the parts to the whole: that is to say, in seeing that the alternation which is obviously necessary as between one particular object and another is also necessary as between all particular objects and the whole. But just this, I think, is what worship means: that the whole must become a separate object of pursuit, taking its turn as if it also were a part, as if it were another among the many goods of practical occupation.[245]

Of course, within Hocking's system, the object, which is first established as separate from the subject, in the act of experience, unites with the subject. Just such a unification with the whole is the essence, according to Hocking, of the mystical experience.

The contemplation of the whole also takes place within consciousness.

> It is precisely the immediate contemplation of it which enables us to know that it is different from all the elements of the world. But if we want to give a positive designation of the object of our contemplation, we must have recourse to a proper name. Hitherto mankind has not yet succeeded in finding for the Absolute a proper name that would satisfy everyone.[246]

In the above sense the absolute whole becomes our immediate object of experience, and thus participates in finite consciousness.

As we said at the conclusion of our discussion on Ward, according to his formulation, the achievement of final unity through process must represent change within the absolute

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[245]Hocking. The Meaning Of God In Human Experience. p.405.

[246]Lossky. The World As An Organic Whole. p.66.

consciousness, if it participates in that process. However, Ward, having rejected the idea of the absolute consciousness changing, did not clearly establish how it could therefore participate in events. Hocking argues that for human consciousness the whole already exists as a possible object of contemplation at each instant. Therefore, the absolute whole, as object, does participate in finite conscious activity without itself changing.

We can best summarise our discussion of Ward and Hocking by drawing some connections between their positions and Bergson's position. Bergson argued that the principle of limitation participated in the temporal series of events. Its concrete content was different from instant to instant.

Ward and Hocking cannot accept Bergson's point. For them time does not change the absolute consciousness. Its concrete content always remains a unity of all reality. Therefore, their positions, taken together, suggest that the Absolute participates only spatially in events, as new organisations of its contents occur.

Of course, adopting their understanding of spirit or consciousness, as ultimate reality, puts one in the rather unusual position of thinking of space being filled with "bits of consciousness." Yet, unlike Bergson, they do not deny absolute extension; therefore, we have no alternative but to think of them as speaking of changing arrangements of conciousness in space. And clearly it could only be in such changing arrangements that the absolute consciousness participates.

So long as one is willing to accept the meaning of

participation as limited to either temporal or spatial participation, both Bergson, and Ward and Hocking, taken together, give a satisfactory explanation of how the diversity necessary for conscious activity, and the equally necessary principle of limitation, can be explained. Later we will encounter thinkers who will accept neither of the above qualifications on participation. However, at the moment we merely re-affirm the insight that conscious activity depends upon the participation of the principle of limitation in the process of events.

CHAPTER XIV: Bernardino Varisco's Neo-Mechanistic Epistemology

As we just noted, the diversity necessary for conscious activity depends upon the principle of limitation participating in the process of events. Thus far, attempts to arrive at a formulation of consciousness, which allow for the above concept, have not been completely successful. With the exception of Bergson's, the epistemologies that we have considered have suggested that the activities of individual minds are limited by their being understood as aspects of a single consciousness. Thus it would be more accurate to say that individual consciousnesses participate in the principle of limitation, rather than that the principle of limitation participates in the process of events. Such an understanding, Broad points out, hardly agrees with the real demand for diversity. He says,

> The essential point is that relations <u>within</u> a mind and between its states seem to be different in kind from the relations <u>between</u> several minds and within a society, and that no society is at once all-inclusive and very highly unified. I therefore can see no good ground for believing in a single mental substance of which all finite minds could be regarded as states or modifications.[247]

Furthermore these essentially idealistic formulations reinforce the idea that diversity is not ultimately real, by suggesting that a "final" unity within the single mental substance will be achieved. Thus the principle of limitation

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[247] Broad. <u>The Mind And Its Place In Nature</u>. p.33.

is seen as ultimately determining activity. However, as we have also explained, there is no way to account for activity in a deterministic system.

Varisco in his epistemology will argue that a single consciousness may not be the principle of limitation, and that limitation does not lead to determinism. That is, it does not eliminate the ultimate spontaneity of individual consciousness. Thus activity is established as real, because it is consistent with the nature of the principle of limitation.

Up to this point it has been necessary to maintain a distinction between the principle of limitation and the concept absolute. The principle of limitation organises the present activity of consciousness, which reaches an absolutely determined organisation at some future instant. In theory the principle of limitation and the ultimate unity are the same. However, if the nature of the former allows for activity, while the nature of the latter represents the already determined end of activity, the two concepts appear contradictory. Varisco, as we will see, attempts to overcome any such contradiction.

Varisco begins by establishing his firm belief that the activity of consciousness depends upon a real diversity. He says, "Be it observed that I do not say -- a body is a phenomenon of myself in so far as I feel it, and therefore is nothing but a phenomenon of myself; I say -- my assertion that a body is more than a phenomenon of myself, is an assertion that extended experience, my own and that of others,

is ordered in a certain way."[248]

According to Varisco reality is composed of multiple centers of relatedness, called by him centers of spontaneity.[249] They are united because they all share the common element of Being.[250] A center of spontaneity, which has reached the level of consciousness, is aware of these two factors, because these factors are inherently within it.

> The true conclusion is this: I have no means and no right to assert anything which is not implicit in me. In other words, nothing exists which is not implicit in me: I am a center of the universe.[251]

Varisco's chief conclusion from the analysis of consciousness is that consciousness is a relational process of organisation.[252] He feels that consciousness demands relations. An entity becomes conscious only in relation to other centers of spontaneity. "Facts are therefore to be ascribed to the activities of primitive unities, which evolve because of their spontaneity, and in their evolution interfere with one another because they form a system, a higher unity."[253]

Assuming that we begin with various centers, containing within themselves an aspect of unity, the relation of one center to another can account for the unity and diversity of conscious activity -- absolute "ideals", used to account for unity by idealism, are unnecessary. Of course some wider

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[248]Varisco, Bernardino. Know Thyself. trans., Gughilmo Salvadori. (London: George Allen And Unwin, Limited, 1915). p.xi.

[249]ibid. p.xiii. [250]ibid. pp.xviii-xix.

[251]ibid. pp.xxi-xxii. [252]ibid. p.41. [253]ibid. p.82.

principle of unity must connect these centers, and this unity is provided by the fact that each center is capable of recognising Being; because each center itself has Being.

> There is nothing of which I must not say that it is a Being. Of nothing can I say anything, unless I say first of it: it is a Being. I know only determinations of Being.[254]

Again this argument is consistent with the requirements for conscious activity. Activity depends upon unity and diversity. Relations between centers also depend upon unity and diversity. "It is now clear," says Varisco, "that the necessity of relations completely solves the problem of reconciling unity and multiplicity -- of making us understand how unity and multiplicity imply each other, so that the one is impossible without the other exists only in the other."[255] Finally, relations are the constituents of knowledge, quite apart from ideals.

Being serves as a principle of limitation for consciousness, as consciousness is able to distinguish objects which contain Being from conceivable objects which do not. However, Being does not stand outside of conscious activity, but it enters into the relations between spontaneous centers. That is, it cannot exist totally apart from its recognition by minds -- it also depends upon relations. Varisco says,

> And therefore, the Absolute cannot be reduced to Being as such. According to the doctrine expounded (as to which we are inquiring, whether it needs or admits of any modifications) the Absolute is the universe in the unity of its forms, which implies necessity, but at the same time

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[254] ibid. p.120. [255] ibid. p.154.

> in the multiplicity of its matter and of its secondary forms -- a multiplicity, which implies accidentality. To sum up, the Absolute is the phenomenal universe -- one indeed, but at the same time manifold also.[256]

In other words Being is a principle of limitation required for conscious activity, but it is not free from relatedness as the term absolute applied to it would suggest. A particular finite subject, therefore, need only experience certain relations of Being in order to have consciousness. The degree of unity necessary for finite consciousness is the recognition of Being in all of those centers of spontaneity with which the particular subject interferes. Certainly there are many centers of spontaneity with which a given subject does not interfere -- though should interference take place, Being would be recognised immediately.

As interference produces consciousness, we may state the above by saying that the unity needed for consciousness remains available, even though some phenomena are inside and some outside of what we know as human consciousness. Idealism, on the other hand, would insist that while something may exist outside of a particular consciousness, it has no existence outside of consciousness in general. To be outside of consciousness in general would, according to idealism, destroy unity. That is, idealism would argue that in Varisco's system Being as a whole must be recognised by a single consciousness, if it is to exist.

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[256] ibid. p.209.

To help clarify these last two statements: Idealism, while it would admit that not everything is known by a given consciousness, would argue that the individuality of the object depends upon its being known by some consciousness. In other words ideas alone allow us to isolate an object -- to individualise it from out of the chaos of sensual impressions.

Varisco's formulation questions the possibility of a knowing subject whose concrete knowledge is all present instants of Being. Varisco says,

> No phenomenon is possible outside the universal unity; if we admit that the universal unity is the consciousness of the universal Subject, no phenomenon is possible outside of the consciousness of the universal Subject. Just for this reason it must be concluded that a phenomenon of mine is the same, both as my phenomenon, and as a phenomenon of the Universal Subject... Since a consciousness which is only theoretical, is nothing but an abstraction, it is clear that if the universal consciousness were the unity of the phenomenal universe, it would be also its cause; that is to say, it would be not only cognitive, but at the same time creative too.[257]

He goes on to say, "The difference between a particular subject and the universal Subject can be reduced, with reference to our present problem, to this that the first is clearly conscious of some phenomena, and the second is clearly conscious of all."[258]

In other words, he maintains that a universal consciousness would be the determinate cause of all finite conscious

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[257] *ibid.* pp.227-229. [258] *ibid.* p.232.

activity. However, if finite conscious activity is understood as determined, its existence cannot be explained, because it depends upon the activity of individual centers of spontaneity.

Therefore Varisco concludes that the concept of a total concrete unity of consciousness is the result of logical abstraction, and not of the concrete unity of idealism's supreme subject. In particular, the concept of ultimate concrete unity is a logical consequence of the concept of a universe. "We may say, in a certain sense, that the universe is the result of a logical process intrinsic to Being, -- of a process by which Being becomes conscious of itself."[259]

Varisco's explanation for this abstraction is that its establishment is the result of a logical process innate within Being itself. Logically the fact that we are conscious of the establishment of finite unities, leads us to the possibility of infinite unity. Moreover, the fact that being itself is a constant supports the truth of this logical conclusion.

However, Being, while constant, enters into the process of events because of its nature, i.e. it relates.

> Since the course of events has had no beginning, it cannot tend towards an ultimate end. For the end would be already attained ab aeterno. It follows that, although the universe is always changing in each of its parts however limited, nevertheless, or rather for this reason, it remains always as a whole in the same general conditions.[260]

Varisco also says:

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[259] ibid. p.241. [260] ibid. p.248.

> We shall never arrive, we do not say at the cessation of happening, but not even at a condition of equilibrium in motion, which we might compare with that at which our solar system, approximately, and not for ever, has arrived.
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> In fact a variation which lasts for ever cannot tend towards a definite goal, be it rest or equilibrium in motion. It cannot be tending towards it, because, if the goal were realisable, it would have been realised years ago... That same necessity which makes the universe <u>be</u>, excludes the possibility of the universe, as wholly one, tending towards an end.[261]

In Idealism the term absolute, referring to a concrete unity, implied a goal -- an end. However, this raises the question of whether conscious activity could be ultimately consistent with idealism's Absolute, as conscious activity requires diversity. If activity is not consistent with the absolute nature of the cosmos, Varisco does not see how activity can be explained. Thus the ultimate concrete unity must be an abstraction.

Varisco is not a theologian. However, he does present what he considers an important theological problem developing out of his work. The problem is whether the metaphysical aspect of his work should be understood "theistically" or "pantheistically."

Theists, according to Varisco, are those who feel that no reason for the existence of God is necessary, and the pantheists are those who find that we must have a reason in order to allow God's existence. Varisco says,

> The principle of ordered activity, immanent or intrinsic in the world, is <u>reason</u> -- say the

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[261] Varisco. <u>The Great Problems</u>. p.245.

> Immanentists or Monists or Pantheists -- and therefore it is nonsense for us to give a reason for it. As the theists do not admit that we should ask a reason for the existence of God -- 'Deus ultima ratio rerum' -- they ought to show that what was true of God was not true of the said principle. This they have not done.[262]

In other words, Varisco wants to know if there is any meaning in talking about God, if that title refers to nothing more than an immanent principle. Hocking's work is some answer to Varisco. As we may recall, Hocking said that the so called "immanent principle" is objectified for worship. God is the title given to the object of worship. Furthermore, Hocking said that worship is valuable because it produces higher morality and art. Nevertheless, we will not answer Varisco in detail here, as later Chapters address this theological problem.

In Varisco's epistemology the ultimate unity of the consciousness of the whole of Being is a logical abstraction. However, this abstraction is grounded in the concrete reality that the Being of the universe is a constant. We are able to formulate this abstraction because of our awareness that all objects have Being. Therefore, the abstraction is arrived at through the encounter with a multiplicity of objects. Unity need not be imposed upon multiplicity, but is inherently recognisable within it. If unity is present both in individual conscious events, and also in the universe as a whole, then the whole must participate in the process of events. Furthermore, as concrete unity is reached through

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[262] ibid. p.357.

multiplicity, both unity and diversity must be factors of Being.

Therefore, according to Varisco, when one speaks of "unity" the term has both a concrete and an abstract reference. For consciousness concrete unity means the unity of particular realised relations of Being, and the abstract unity is the ideal of All relations of Being included in a single consciousness.

Varisco's epistemology, as summarised above, is quite different from idealism. To begin with idealistic epistemologies would not say that ultimate unity is an abstraction. Indeed, for idealism ultimate unity is the concrete unity of all reality. Through the activity of the individual conscious mind the concept of ideal or abstract unity may be formulated, but the activity involved in making this formulation is not the same as the object of formulation. The abstract unity involved in conscious activity, and the ultimate concrete unity of consciousnesses are not the same. The former is the principle of limitation used in epistemology to account for the unity of finite consciousness; the latter is the "Absolute" used in some metaphysics to account for ultimate unity.

Varisco's point is that to suggest that there is a metaphysically ultimate concrete unity -- an Absolute -- is to deny the very possibility of finite conscious activity. Therefore, one must say that the activity of consciousness suggests that activity is characteristic of the universe as a whole. One may apply the term absolute to universal activity in the sense that universal activity includes all reality. However, in this case the term absolute would have

an abstract meaning as well as a concrete meaning. Abstractly the term absolute would refer to the fact that Being, while dynamic, remains a constant. The concrete reference of the term absolute could only be the particular configurations of the whole of Being at a given instant.

Therefore, Varisco's formulation would never use the term absolute to refer only to a concrete unity. Just as the concept of principle of limitation in epistemology must allow for an abstract ideal of unity, so the use of the term absolute in metaphysics must have an abstract reference -- and not only a concrete reference, as idealism would suggest. On the other hand, as we have seen, Varisco does not deny that the unity of consciousness has a concrete aspect, nor does he deny a concrete reference for the term absolute. In other words Varisco does not make the distinction, common to idealisms, between the principle of limitation and the "Absolute." That is, Varisco's use of the term absolute would not make it contradictory for a position that accepted true diversity.

Varisco's formulation, as we have seen, eliminates the need for the above distinction between principle of limitation and the "Absolute." Activity is characteristic both of individual consciousnesses and also of the universe as a whole. Universal activity may be called "absolute" as it is a constant which includes all of reality. However, one could just as well speak of concrete absoluteness as the principle of limitation. Meaning by that, that the universal fact of Being, which permits the organisation or unity of consciousness, is itself dynamic. Bergson's epistemology, we may recall, adopted such an understanding of the concept of limitation. Varisco, unlike Bergson, finds no reason to couple his epistemology with a metaphysical dualism.

CHAPTER XV: Emergent Evolutionism's Epistemology

Varisco's explanation of how the principle of limitation participates in the process of events eliminated the need for making a distinction between the activity of individual consciousnesses, and the activity of the universe as a whole. Knowing -- one of the activities of consciousness --, he said, was composed of relations of interference between unified centers of spontaneity, implying that knowledge does not depend upon changeless ideals or forms. Likewise, the activity of the universe as a whole is composed of relations between Being as a constant, and the changing distributions of Being in the centers. In other words, individual conscious activity is not activity within the universal consciousness, but rather is the activity of the universe.

The above means that when Varisco discusses the activity of consciousness in his epistemology, he is also referring to his conception of the universal activity. What this formulation accomplishes is the fulfilling of both requirements for a Process epistemology. First, Being serves as a principle of limitation for the evaluation of mental data by allowing a mind to recognise objects that have Being. Second, Being provides unity by its presence in all relations, and diversity by itself participating in those relations.

Alexander and Morgan, as we will see, agree with much of what Varisco attempts in his formulations. That is, they also see no reason for making a distinction between the activity of consciousness and the organisation of the universe

as a whole. Nevertheless, Varisco's suggestion that knowing means relations of interference within Being and between centers of Being is not the only possible way to analyse concsious activity. What he meant by the term Being, for example, was not completely clear. Alexander with equal success argued that consciousness can be understood as relations of and within Space-Time. And Morgan, as we will see, offers still another alternative.

A. S. Alexander's Concept Of Mind

Alexander from the beginning makes it clear that epistemology and metaphysics are not to be separated. "It follows," he says, "that for the empirical method the problem of knowledge, the subject-matter of epistemology, is nothing but a chapter, though an important one, in the wider science of metaphysics, and not its indispensible foundation."[263]

As we saw in Chapter VII, Alexander selected Space-Time, which divides itself into point-instants of space-times, as the common stuff of reality. According to Alexander, what in epistemology would be called categories or ideals are not applied to space-times, but develop out of them.

> Now the clue to the understanding of our thesis is that the categories are not applicable as it were ab extra to spaces and times, but that they are applicable to things (including minds) because they flow from the nature of the space-times which they occupy or which they are. Applicability to space-times has no meaning for the categories, which are the features or determinations of the space-times themselves.[264]

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[263] Alexander. Space Time And Deity. Vol. I. p.7.

[264] ibid. p.190.

In other words, the categories used by the mind as a principle of limitation for the organisation of conscious activity do not exist outside of that activity, but arise from within the activity itself. Another way of stating this is to say that the principle of limitation participates in the process of events. Conscious mental activity, therefore, is an aspect of some universal activity, the organisation of which is the principle of limitation. Alexander says, "Our hypothesis is merely that alike in the matrix of finite things and in all finite things there is something of which, on the highest level we know of finite existents, mind is the counterpart or correspondent."[265]

Furthermore, Alexander understands that the participation of the principle of limitation in the process of events accounts for both unity and diversity.

> It is because the mind selects (actively or passively) from the total thing parts of it, which it contains or of which it is the foundation, that the objects of mind are thought to owe their _esse_ to their _percipi_. All that they owe to the mind is their selection, that is their _percipi_. But their _esse_, their existence and their qualities, they have as being finite existences in Space-Time, and thus non-mental.[266]

The factor which unifies all entities, according to Alexander, is that they are all spatio-temporal configurations of Space-Time. Yet as Space-Time is itself divided into space-times, each entity has its own _esse_. In other words, diversity is characteristic of the principle of limitation itself, i.e.

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[265] Alexander. _Space Time And Deity_. Vol. II. p.44.

[266] _ibid_. pp.94-95.

the universal organisation of the activity of Space-Time. Therefore, the activity of consciousness, which requires both unity and diversity, is the same as the nature of the universe as a whole.

Having established that Alexander's system understands that the requirements for conscious activity are a principle of limitation, and the principle's participation in the process of events, which allows for unity and diversity, we must now look at how he understands the nature of knowing. For Varisco, we may recall, knowing was the recognition of Being through the interferences between spontaneous centers. Alexander will argue that knowledge results from what he calls a "selection" of objects by a mind.

As we may recall from Chapter VII, a mind for Alexander is an extremely complex organisation of Space-Time having the quality of consciousness. A living cell or an atom would be illustrations of less complex configurations. Therefore, Alexander is suggesting that the process of knowing requires that at least the subject be a mind. He would not, for example, say that one atom "knows" another atom. In other words, the activity to which we give the name "consciousness" does not occur until a certain level of complexity has emerged within the universal process.

Therefore, Alexander says,

> Strictly speaking, it is this totality of knower and known, of subject and object, which is true or good or beautiful. The tertiary qualities are not objective like the secondary ones, nor peculiar to mind and thus subjective like consciousness, nor are they like the primary qualities common to both subjects and objects. They are

subject-object determinations.[267]

That is to say, the qualities of truth, goodness and beauty can be experienced only in the cognitive act of unity between subject and object. These qualities Alexander also calls values, and they are mental.

> But their dependence on the mind does not deprive them of reality. On the contrary, they are a new character of reality, not in the proper sense qualities at all, but values, which arise through the combination of mind with its object. What experience of every kind is often thought to be, namely, something in which the mind and its objects can be distinguished but cannot be separated, so that there can be no space nor colour without an experiencing mind, is true of values but nowhere before.[268]

Because of the very nature of reality, the complexity of relations in Space-Time, on the level of human consciousness, have the special significance of creating values through the combination of mind with its objects. Furthermore, the development of values is a social action of the unity among knowing subjects. For example, "Many minds are needed then for truth, not because the many facets of reality are visible only to a multiplicity of minds, but because in the intercourse of minds the truth is created as truth, at the guidance of reality, by mutual confirmation or exclusion of beliefs."[269]

In other words, morality is produced by the interaction between man as a society and his environment. "Accordingly

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[267] ibid. p.238. [268] ibid. p.244. [269] ibid. p.261.

it is indifferent to say that morality is the adaptation of human action to the environment under social conditions, or that it is the system of actions approved by man under the conditions set by the environment."[270] Either way it is the very nature of all reality to form a complex unity that leads to morality.

Finally Alexander says,

> The realities which the collective wills of persons make into morality or moral institutions are human nature under the external conditions of its existence. There is hence progress in morals, more perfect institutions growing up as fresh opportunities arise for adjustment of man first of all to his natural surroundings and next to his fellow men.[271]

Therefore, for Alexander knowledge is the recognition of value through the interaction of a conscious subject with its object. In a social setting value is called morality. However, we must remember that while the recognition of value requires a conscious mind, values are recognised -- just as Varisco's Being is recognised -- and not "created" by the mind. Alexander says,

> For values imply in their simplest expression something which does not depend on the living or conscious character of the subject of value but applies to any finite complex of space-time. Things are relatively independent volumes of space-time with a certain internal and external configuration; into which the whole Space-Time breaks up. Adaptation is the return of the complexes out of separation from the whole into unity with it. Only point-instants which have no complexity of structure are from the first and always adapted to their surroundings.[272]

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[270] ibid. p.274. [271] ibid. p.282. [272] ibid. p.311.

Here, as in Varisco, the unity of the knowing process is understood as having an abstract as well as a concrete aspect. The concrete aspect is the particular value selected by individual minds. On the other hand, the abstract aspect is a logical concept of returning into unity, which Alexander has just called "adaptation." The point of adaptation is that if knowldege of certain concrete values is possible for finite minds, and if the social unity of values leads to a moral society, then it is abstractly possible to conceive a single mind that knows all values and is moral to the highest possible degree.

God is the entity whose perspective includes knowledge of all finite values,[273] and who is thus moral to the highest possible degree. This abstract concept of God is another way of describing the principle of limitation necessary for consciousness, because it suggests the ultimate organisation of values. However, as the principle of limitation participates in the process of events, God is effected by finite values. Alexander illustrates this point in a remark about the First World War:

> The struggle for mastery between two ideals of civilisation has been carried on before our eyes at the cost of endless sacrifice of precious lives which might we must think have made the world better and accelerated knowledge. For those who have lived in the midst of this disaster, however much illumined on either side by the most exalted and conflicting hopes, how is it possible to rest content with the idea of a God who does not share these vicissitudes of his creatures but suffers them to exist? The case is changed if deity itself is the outcome of the world's movement and

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[273] ibid. p.388.

> in particular, to the extent of their value, of the efforts of human beings. It is not God then who allows the struggle, but the struggle which is to determine, it may not be at once but in the end, what deity is to be: which ideal if either is on the side of the divine.[274]

Finally we may add that error is not possible from the perspective of Deity, because God always represents the best possible morality. Alexander says,

> Error and ugliness and wickedness are finite relatives and remain as such, unvalues, in the body of God. But perishing in that form they are used up in a changed form for the purposes of deity.[275]

We have now presented two systems -- Varisco's and Alexander's -- which appear to meet the requirements for a Process epistemology. For our purposes, one great difficulty in clarifying these systems has been the establishment of the precise connection between metaphysical and epistemological formulations. The solution that we have suggested centers around their use of the term absolute.

The idealisms that we discussed in earlier Chapters appeared to give the term absolute one reference in metaphysics and quite another in epistemology. In metaphysics the term absolute referred to the ultimate concrete unity of all reality. In epistemology, on the other hand, the term absolute referred to the principle of limitation which provided organisation for conscious activity. In the former absoluteness precluded diversity, while in the latter absoluteness assumed diversity.

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[274] *ibid.* p.400. [275] *ibid.* p.419.

In Varisco's and Alexander's systems the above distinction is not used. They assume that the term absolute has only a single reference for both metaphysics and epistemology. The term absolute refers to an ultimate principle having two aspects. The first aspect is a logically abstract aspect of total unity. This aspect is abstract in the sense that a final unity, which precludes diversity, is not realised. However, the fact that ultimate concrete unity is an abstraction does not make it meaningless. As we have seen, in spite of its abstract nature absolute unity serves both metaphysics and epistemology as a principle of limitation. Without it activity would appear chaotic. In principle idealism's concept of limitation is the same as the concept of an abstract understanding of an absolute unity. However, idealism also realised that, unless the absolute concretely contains all reality, change in the "Absolute" became possible, as it would be subject to participation in the process of events. This last point proves to be true because if the total unity is abstract it does not preclude the concrete existence of lesser unities.

Indeed the second aspect of the understanding of the term absolute, as it is used by Varisco and Alexander, is that it must be understood along with a concept of its division into concrete unities, i.e. a multiplicity of entities. True diversity must mean that entities have an aspect of unity in themselves. Otherwise they would be determined by some absolute principle of unity. However, as the unity of each entity has its source out of the ultimate principle, one can equally well think of the concrete aspect of unity as being the total

concrete content of all entities. Therefore, as the concrete content of entities change, the unity participates in this process. As yet we have discussed no thinker who denies that conscious activity produces changes in entities.

The above paragraphs serve as a summary of the key points of Varisco's and Alexander's thinking. However, they also provide an introduction to Morgan, who reformulates and helpfully clarifies several of them.

B. C. Lloyd Morgan's Concept Of Reference

Morgan, as we saw in Chapter VII, singled out Alexander as a primary target for attack. Both men were Emergent Evolutionists, and thus shared much in common, but some of Alexander's concepts seemed to Morgan to disagree with the data coming from biology.

Morgan believes that biologically understood the activity of the mind must be grounded in phenomena. He says, "I seek in vain for evidence that spatio-temporal relatedness does exist apart from physical events."[276]

In other words, Morgan argues that all forms of knowing are states within the mind's structure. "My doctrine is," he says, "that all that is minded is within us, and founded primarily on the correlated outcome of receptor-patterns; that there are physical things existent in their own right outside us in a non-mental world; and that the properties which render them objective in mind are projiciently referred to these things."[277]

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[276] Morgan. Emergent Evolution. p.23.

[277] ibid. p.50.

"Projicient reference" is the special relatedness established between objects and the human subject, by way of the physical structures composing the subject.[278] In other words, as an illustration of the necessity of structure, many of the human mental activities depend upon the special form of the human visual development.

What Morgan wants to know, for example, is how can one say that the elements of consciousness are in all reality, when consciousness, as we know it, seems intimately related to the "chance" development of the human eye. Driesch, another biologist, we may recall, pointed out that while conscious activity demanded some principle of limitation which ordered activity, organisms themselves appeared to have evolved through a process of chance. Morgan reinforces these points by suggesting that what we call consciousness could not exist apart from the particular structures of conscious organisms. Therefore, consciousness is the way certain organisms relate to their environment. Consciousness is in no sense a characteristic of the environment itself apart from the structure of knowing minds.[279]

Alexander, on the other hand, suggested that consciousness was a characteristic of a particular configuration of Space-Time. And Morgan interprets Alexander as suggesting that consciousness can be understood apart from the physical structure of the organisms. This position Morgan cannot accept. He says,

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[278] ibid. pp.113-115. [279] ibid. pp.183-184.

> If the idealist assert that colour lives only at the top, in the mind, irrespective of physical correlates in the organism; or if the realist assert that it lives only at the bottom, in the thing, irrespective of psychical correlates in the organism; I respectfully submit that each goes beyond the evidence. According to the evidence (if I do not misread it) colour lies in the whole situation; in other words, it has being in virtue of extrinsic relatedness of person (body-mind) and thing... And if either person or thing, which thus function as extrinsic terms, be absent there is no colour (as Mr. Alexander admits there is no beauty) in being.[280]

On the other hand Morgan admits that conscious activity must have some principle of organisation. However, consciousness is peculiar to the mind's structure in the sense that vision is peculiar to the eye. The structure of the eye allows for vision, and the structure of the mind allows for consciousness. Nevertheless, similar to Driesch, Morgan believes that the existence of "values" illustrates the need to posit some plan of organisation for consciousness.

Morgan holds that awareness of this plan of consciousness is an instinctive aspect of heredity.[281] He says,

> We have reached the fully reflective epoch in evolutionary advance when rational schemata for the interpretation of events plays a leading part in human affairs.[282]

Morgan goes on to say,

> Objective values, as such, may be regarded as the items of stuff which in our present context con-

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[280] ibid. p.229.

[281] Morgan, C. Lloyd. Life, Mind And Spirit. (London: Williams And Norgate, Ltd., 1926). p.146.

[282] ibid. p.250.

> stitute a schema, or that which is schematised in reflective thought. The substantial going together in this distinctive manner of these items of value within the schema is that which gives it worth. [283]

By the term "objective" Morgan is suggesting that values are not limited to individual minds.

Values for Morgan are a special sort of relatedness possible only for minds on the level of emergence called "reflective reference." These values are not predetermined totally, but are conditioned by such factors as physical and social environment, and the needs, structure and health of the body.

In Morgan's analysis, as was true in Driesch's, we appear to reach a point at which the organisation of conscious activity, and the biological evidence for the chance nature of evolution are contradictory. The fact that values form an objective schema indicates that conscious activity is capable of organisation. Nevertheless, evolutionary activity appears to be random in its total effects. Therefore, Morgan next gives his account for why random activity is found to be organised within certain emergent levels -- especially within the conscious level. Morgan's resolution of this dilemma stems from his introduction of a doctrine of God. According to Morgan, God cannot be proven to exist, but God's existence does make Morgan's system comprehensive.[284]

Concerning a belief in God Morgan says,

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[283] ibid. p.262. [284] ibid. p.299.

> This implies the emergence of the religious attitude, that is, a mental attitude, toward the acknowledged reality of Divine Purpose. It is this mental attitude that is in some persons emergent... And in this sense the rational order of the cosmos, no less than Divine Purpose, is dependent on mind. But under acknowledgment we believe, though we are unable to prove to the satisfaction of those who do not believe, (1) that the rational order has being independently of the reflective mind that is evolved within it, and (2) that Divine Purpose has being independently of the spiritual attitude through which it is revealed in this or that individualised person.[285]

In the above quotation Morgan begins by reinforcing his point that no organisation of activity into what we call consciousness exists apart from the physical structure of minds. However, he also feels that there is sufficient evidence to support a "belief" that rational order has at least an aspect, which is independent of the physical structure of minds. In particular the fact that conscious minds share values indicates some order beyond that of individual minds. Thus he says,

> Now values are possessed by mind. Only as possessed by mind have these specific forms of reality, existence or substance. But possession by mind implies for Mr. Alexander, 'combination of mind with its object' or, in my phraseology, corpresence of enjoyment with reflective reference. Enjoyment is purely individual; and yet even this enjoyment in presence of value is, as Mr. Alexander insists, more than individual, it is communal. Reference is no less individual; and yet it, too, is more than individual; it is social and hence, as I think, so far personal.[286]

In order to understand the above we must look very closely at the distinction between individual and personal.

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[285] ibid. pp.303-304. [286] ibid. p.310.

Individuality is admitted to be the characteristics of an entity in itself. Personality is the character of an entity achieved through its relation to other entities. Morgan says,

> Individuality and personality, as limiting concepts, are poles asunder. At one pole is absolute uniqueness; at the other pole the universal feature that characterises the type. Each of us is bi-polar, swinging somewhere between these extremes. To paraphrase what Mr. Bertrand Russell has said of literature. A person embodies what is general in particular circumstances. The universal significance of his personality shines through his unique individuality.[287]

In other words, Morgan suggests that conscious entities have two aspects. On the one hand they are individual -- absolutely unique. This concept would clearly be consistent with evolution by chance events, in which the probability of even two organisms being the same is infinitely small. On the other hand, conscious entities are personal -- relative. That is, entities on any level of emergence share universal characteristics. These universal characteristics suggest some cosmic plan -- or, for those persons who have a religious attitude, a "Divine Purpose."

Like individual entities the cosmic plan or Divine Purpose also has two aspects. On the one hand, as Morgan said, "the Divine Purpose has being independently of the spiritual attitude through which it is revealed in this or that individual person." On the other hand it is relative by its being "dependent on Mind". Therefore, it, like mind, is bi-polar. Finally, like the reflective mind, the cosmic plan is a rational order.

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[287] ibid. p.310.

Of course, Morgan said that his conclusions in favour of a divine purpose were not subject to rigorous proof. Nevertheless, if they are "believed" the metaphysical implications of Morgan's system would have marked similarities with the metaphysical implications of Varisco's and Alexander's systems.[288]

We may here mention a few of these possible similarities. First, the absolute pole on the level of mind and on the divine level allows relatedness. However, the absolute pole does serve as a principle of limitation. On the human level it permits the establishment of values, and on the divine level universals. Values, we may recall, are the interpretation of events relative to the individuality of the conscious entity's structure. Therefore, values provide a standard by which entities can evaluate events. On the level of God, we may assume that universals are the divine evaluation of events. Morgan, like Alexander, would certainly have to assume that God enjoyed a wider perspective than any human consciousness.

Second, not only is the absolute pole a principle of limitation, but for Morgan it must also participate in the process of events. According to Morgan the individuality of the entity depends upon its relations with other entities. Furthermore, we are told that the divine purpose depends upon finite minds. Relations on the level of minds are possible through reflective reference to universal characteristics.

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[288]Morgan insists that he does not wish to do metaphysics. cf., e.g. Instinct And Experience. (London: Methuen & Co.,Ltd., 1913). p.250.

However, universal characteristics also depend for their emergence upon finite minds. In other words, relations between unity and diversity, i.e. activity, which Morgan calls "universal from base to apex of the whole emergent pyramid,"[289] are the same on the level of mind and on the universal level. From the viewpoint of metaphysics he might thus conclude with Alexander that individual conscious minds represent a division of a universal principle of consciousness. Moreover, this division is a true diversity,as the universal consciousness would then participate in the process of events.

Once again in Morgan's formulations we have observed the essential requirements for a Process epistemology. However, Morgan's epistemology demonstrates some differences from that of Alexander's. The most important difference is Morgan's grounding of consciousness in physical events. This was done, as we saw, in order to incorporate data coming out of the study of evolution.

Morgan's point has been that the particular nature of consciousness could not have existed until the chance evolution of the physical structure of the conscious organism. If the human organism had not evolved, then consciousness would not have existed. Morgan believes that Alexander's thinking suggests that the nature of the universe itself predetermined the necessary development of an organism like the human mind. Of course Alexander did not suggest that particular minds were predetermined, but it is true that he implies that something like the human mind had to evolve.

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[289]Morgan. Emergent Evolution. p.209.

In Chapter VII we saw that Alexander said that the levels of emergence were determined, even though the particular entities on each level were not. Morgan, on the other hand, rejected even the determination of the levels. Therefore, from a metaphysical viewpoint, Morgan's use of biological data establishes the total participation of the principle of limitation in the process of events. According to what Morgan says we must assume that the principle of limitation did not even exist until physical events began to occur. At the outset activity was totally free; it was "pure" potential to use Bergson's words. The fact that events occurred as they did was sheer chance, but once they began to occur the principle of limitation developed.

Varisco and Alexander would agree that the principle of limitation always existed abstractly, but that its concrete content developed. Morgan, on the other hand, has suggested that the principle of limitation could not have existed before physical events. The absolute and relative poles must always be found together.

According to Morgan the biological perspective demands the conclusion that the fact that there is conscious activity is sheer chance. As we saw in Chapter VII, Morgan's introduction of God is used as an argument in favour of the metaphysical view that some ultimate principle underlies the fact that the universe is active rather than entropic. Morgan does not say that sheer chance can finally explain why there is activity rather than no activity. However, his point is that every concrete form of activity -- including conscious activity -- must be assumed to exist because of sheer chance; if

one takes the biological evidence seriously. The above point may be restated by saying: 'Anything which now is, might equally well not have been.' The fact of consciousness is the result of chance evolution.

CHAPTER XVI: Teilhard de Chardin's Epistemology

> The more man becomes man, the less will he be prepared to move except towards that which is interminably and indestructibly new. Some 'absolute' is implied in the very play of his operative activity.[290]

Grounded as he is in the sciences related to biology, Teilhard, like Driesch and Morgan, sees that while some principle of limitation is needed in order to explain the organisation of activity, the process of evolution confronts the scientist with what appear to be random events. This dilemma applies to the activity of consciousness, of which Teilhard says; "The consciousness of each of us is evolution looking at itself and reflecting upon itself."[291]

Teilhard says that he accepted the random nature of evolutionary activity for a long time, before becoming aware of any concept of overall organisation of evolutionary activity. He tells us that his first thought of such organisation came as a revelation:

> As I listened to my friend my heart began to burn within me and my mind awoke to a new and higher vision of things. I began to realize vaguely that the multiplicity of evolutions into which the world-process seems to us to be split up is in fact fundamentally the working out of one single great mystery; and this first glimpse of light caused me, I know not why, to tremble in the depths of my soul.[292]

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[290] Teilhard. The Phenomenon Of Man. p.255.

[291] ibid. p.244.

[292] Teilhard de Chardin. Hymn Of The Universe. (London: Collins, 1965). p.50.

This insight about activity certainly applies to conscious activity, but not only to conscious activity, as many idealists would maintain. "A mankind which proclaims that it is alone, or in a special position, in the universe reminds us of the philosopher who claims to reduce the whole of the real to his own consciousness, so exclusively as to deny true existence to other men."[293]

The connection between Teilhard's new insight concerning activity in general, and its application to conscious activity is suggested in the following:

> The most extraordinary thing about the phenomenon of knowledge is not that each one of us can understand the world. The really amazing thing is that the countless points of view represented by our individual thoughts should have a point of coincidence; that, intellectually, we should all appreciate one and the same pattern in the universe; that we should understand one another. The reason for the existence of this mutual understanding, of this intellectual concurrence in our collective penetration of the real, can be found only in the existence of a principle which controls and unifies individual perceptions.[294]

In other words, conscious activity reinforces the demand for some principle of organisation or limitation. Up to this point in the argument Morgan and Teilhard would be in close agreement. However, Morgan seemed to suggest that the principle of limitation, i.e. the dynamic organisation of the universe, had no existence prior to physical events. The problem which Morgan's concept presents is how to account for the fact that activity began at all, if activity in part depends

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[293]Teilhard de Chardin. Christianity And Evolution. trans., René Hague. (London: Collins, 1971). p.43.

[294]ibid. p.61.

upon a principle of limitation, and yet there may have been a time when that principle did not exist. Of course, Morgan admits that activity suggests that some principle did always exist, even if this point is beyond conclusive proof.

Teilhard, however, believes that the fact of activity is itself conclusive proof for a primordial principle of limitation. He says,

> To wake and nourish human energy, there must have been at the very outset an inner attraction towards a desired object. Things cannot have happened otherwise... Now this fundamental preference for being, without which the world, as it attained thought, would logically have returned to dust, necessarily implies faith in some final completion of <u>everything</u> around us. If being is by nature holy there is no salvation except of <u>everything</u> that exists. We act therefore, in the final analysis, in obedience to a world, to incorporate ourselves in a world, to complete ourselves with the world. A total and totalizing end: nothing less could set the springs of our liberty in motion and bend them to it.[295]

In the above Teilhard expresses his total commitment to the idea of a necessary principle of limitation which made the beginning of organised activity possible. This concept leads him to the further conclusion of the necessity of having "faith in some final completion of everything around us." Neither Driesch nor Morgan suggested such an idea. Therefore, we would do well to investigate how it arose for Teilhard.

Teilhard believed that the biological evidence for evolution not only suggested a necessary principle of limitation, but it also demonstrated the nature of that principle. He

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[295]Teilhard. <u>Human Energy</u>. p.139.

says, "It is one in which the consistence of the elements and their stability of balance lie in the direction not of matter but of spirit; in such a universe, we must remember, that the fundamental property of the cosmic mass is to concentrate upon itself, within an ever-growing consciousness, as a result of attraction or synthesis."[296]

Teilhard believed that each step in evolution, no matter how random it may appear, had a factor in common with every other step. Evolution as a whole represents a process of the concentration of activity around centers of increasing synthesis. Consciousness, for example, illustrates an extreme concentration of activity around a given point of reference. This reference is described by Teilhard as the "morals" of a particular conscious organism. We will say more about the concept of morals in a moment.

The ultimate centralisation of universal activity, according to Teilhard, occurs at point "Omega". This belief in the outcome of evolution does not, according to Teilhard, contradict the random nature of evolutionary activity. "Nevertheless, for all the control exercised by the polarizing action of Omega, convergence is effected only by means of divergencies that allow life to <u>try everything</u>."[297]

Therefore, Teilhard's principle of limitation appears to function at the beginning, during and at the end of the process of events. However, the principle does not prevent diversity. The fact of diversity continues to be accepted

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[296]Teilhard. <u>Christianity And Evolution</u>. p.87.

[297]Teilhard. <u>Activation Of Energy</u>. p.124.

even when Teilhard associates the principle of limitation with the concept of God.

> The first condition is that He shall combine in his singularity the evolutionary extension of all the fibers of the world in movement: a God of cosmic synthesis in whom we can be conscious of advancing and joining together by spiritual transformation of all the powers of matter.
>
> And the second condition is that this same God shall act in the course of this synthesis as a first nucleus of independent consciousness: a supremely personal God, from whom we are the more distinguishable the more we lose ourselves in Him.[298]

Up to this point men who have met the requirements of a Process epistemology have done so by suggesting that the principle of limitation can allow diversity only if it participates in the process of events. Whether or not Teilhard accepted such participation of the principle is not yet clear. However, we will here point out a potential problem that the Teilhardian system has for the establishment of such participation by the principle.

If the goal of the process of events is determined by the principle of limitation before the process even begins, then it would seem impossible for any events to have significant effects upon the process. This, we may recall, was the gist of the problem which Bradley had with the Hegelian system. Clearly Teilhard sees the need for diversity. He says,

> Organisation not only presupposes but also produces the complexity upon which its unity flowers. This is a fact of universal experience.[299]

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[298] Teilhard. Human Energy. p.109.

[299] Teilhard. Activation Of Energy. p.116.

However, the problem for Teilhard is the establishment of the nature of this diversity.

We here begin by looking at the nature of diversity in conscious activity. According to Teilhard conscious minds gain their individuality from a particular kind of social relatedness. Teilhard calls this social relatedness "responsibility" and says,

> From this point of view, and as a rough initial description, we may say that the evolution of responsibility is simply one particular aspect of cosmogenesis. Or to put it more exactly, it is cosmogenesis <u>itself</u> observed and measured not (as we customarily do) by the degree of organic complexity or psychic change, but by the degree of constantly increasing inter-influence within a multitude which is progressively concentrated upon itself in a convergent medium.[300]

Again he says,

> In other words Evolution, in <u>rebounding</u> reflectively upon itself, acquires <u>morality</u> for the purpose of its further advance. In yet other terms, and whatever anyone may say, above a certain level, technical progress necessarily and functionally adds moral progress to itself.[301]

Once evolution has reached the reflective level, i.e. the level of consciousness, advances cease to be achieved by the "degree of organic complexity or psychic change." In other words, individual entities stop forming organic unities, in which the nature of the unity is dominate over the diversity that it includes. Instead individual conscious entities "inter-influence" one another. That is, they relate

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[300] <u>ibid</u>. p.209.

[301] Teilhard de Chardin. <u>The Future Of Man</u>. trans., Norman Denny. (London: Collins, 1964). p.204.

to one another in a bond of mutual "responsibility" without the loss of their individuality.

That is to say, for Teilhard morality represents the unity of conscious individuals. Like the formation of the organic unities on the lower levels of evolution, the moral unity comes about only by trial and error. "Under whatever particular form, it is considered, the physico-moral obeys in its activity a double law, both essential and universal: to try everything -- to its conclusion."[302]

Evils are those unsuccessful attempts at morality. Such attempts become "dead-ends" in the process of evolution. They are unsuccessful "adaptations", to put it in Alexander's terms.[303]

The "convergent medium," of which Teilhard spoke, is also called by him the "noosphere." Of the noosphere he says,

> In the first place,it is unique, and therefore final. Unless we are to imagine (a thing that is supremely improbable) that our noosphere may one day come into contact with other sideral noospheres, collectively reflective mankind confronts nothing but itself. In these circumstances, it is impossible to conceive a further complexification which would determine a higher consciousness. Our law of recurrence automatically ceases to operate.[304]

Teilhard's point is that until evolution reaches the level of consciousness true diversity does not become apparent. At the outset the principle of limitation does predetermine that the stages of evolution move towards an increasing

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[302]Teilhard. Human Energy. p.126.

[303]Teilhard. Activation Of Energy. p.108.f.

[304]ibid. p.144.

organic unity. On the material level activity appears mechanistic. Out of the mechanistic activity comes life, which hints at the potential for the development of true diversity. However, only on the level of consciousness do true individuals finally emerge. "If indeed," Teilhard says, "as we have assumed, the world culminates in a thinking reality, the organisation of personal human energies represents the supreme stage of cosmic evolution on earth; and morality is consequently nothing less than the highest development of mechanics and biology."[305]

Teilhard uses the term "love" to designate the final unity of consciousness.[306] Love is God.

> God can only be defined as a center of centers. In this complexity lies the perfection of His unity -- the only final goal logically attributable to the developments of spirit-matter.[307]

Teilhard was of the opinion that the type of unity illustrated by the complexity of conscious individuals in the noosphere is somehow superior to the unity of the cosmos which existed prior to the emergence of consciousness. Therefore, unity as a principle of limitation does participate in the process of events to the extent that it is "perfected" by these events.

Granted that Teilhard's thought is often very difficult to follow, the foregoing analysis does seem to indicate that he attempted to meet the requirements for a Process epistemology. First, he clearly saw the need for a principle of

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[305] Teilhard. Human Energy. p.105.

[306] ibid. p.83.

[307] ibid. p.68.

limitation. Second, his suggestion that the development of conscious individuals perfected the principle of limitation shows that Teilhard saw that diversity could only be real if the principle of limitation participated in the process of events.

Nevertheless, Teilhard, somewhat like Hegel, attempts to adopt the two different understandings of the concept absolute. On the level of epistemology he speaks in terms of a principle of limitation which he called responsibility or morality. This principle directs consciousness toward relationships, by serving as the basis upon which conscious entities are united. Clearly morals are not unlike Varisco's Being or Alexander's values in their role as a principle of limitation for consciousness.

On the metaphysical level, however, the principle of limitation is understood by Teilhard to be an absolute concrete unity of all reality. This unity is clearly not the same as the Hegelian Absolute. Hegel suggested that diversity ultimately vanishes in concrete unity. Teilhard said that ultimate concrete unity remains a complexity of individuals.

In support of Teilhard's position, it is true that, using the model of an organism, we have often spoken of complex-unities. However, these organic unities are never ultimate, as the individual entities composing an organism continue to produce changes in the organism as a whole. Furthermore, and perhaps more important, Teilhard does not think of ultimate unity as organic.

Teilhard seemed to suggest in his discussion of the nature of the noosphere that Omega -- which is called ultimate -- should not be thought of as the point at which the universe becomes a single cosmic organism. Indeed, taking his description of the noosphere as something like a model for Omega, we might think of Omega as the perfect society in which the individuality of each entity is determined totally by its feelings of moral responsibility for all other entities. This possible view of Omega is further supported by the fact that evils, according to Teilhard, are unsuccessful attempts at morality, and are dead-ends in evolution. If Omega is the only possible successful outcome of evolution, it must be free of evils, i.e. perfectly moral.

However, even Teilhard admits that diversity is the result of trial and error. If errors cease to be made at point Omega, it is difficult to understand the basis for a diversity.

The understanding of Omega suggested above is merely one of a number of possible explanations of what Teilhard envisaged. However, our point is that references to Omega imply that it is the ultimate determination of reality. In which case it would be contradictory to true diversity, and its formulation would represent a use of the term absolute that is not acceptable to Process thinking.

Clearly much of what Teilhard says is completely consistent with Process thought. However, the problems we have had with deciding whether or not to place Teilhard among those who hold consistent Process epistemologies illustrate that a writer's understanding of the term absolute is a fairly good test for distinguishing how consistently he follows a Process structure.

CHAPTER XVII: A.N. Whitehead's Epistemology

A Process epistemology requires first of all a principle of limitation for consciousness. Second it requires that conscious activity -- like all other activity -- must be composed of true unity and true diversity. In all the epistemologies which we have considered, the principle of limitation provides the unity or organisation necessary for conscious activity.

As we have seen time and again, the concept of unity is directly related to the concept of absoluteness. In idealistic philosophy the term Absolute generally refers to an ultimate concrete unity of all reality. However, within an ultimate concrete unity activity ceases because diversity is no longer possible. For idealistic philosophies, that understand the Absolute to be an ultimate concrete unity, the abstract unity provided for conscious activity by the principle of limitation and the unity of the Absolute are different. The former allows for diversity, but the latter does not.

Process philosophers have argued that these two understandings of unity make the concept ambiguous. If unity allows for diversity, this must be true both in the cosmos as a whole and also in finite consciousnesses; for otherwise the "source" of conscious activity cannot be explained. Of course, if unity allows for diversity this means that its concrete content cannot be a unity of "all" reality.

Therefore, one of the important tasks of Process epistemologies has been an attempt to discover the nature of the

principle of limitation, if one rejects the concept that it parallels an ultimate unity of all reality. The most common solution has been the suggestion that the absolute unity divides itself into a multiplicity of entities. Therefore each entity is both a unity in itself, and also a participant in a common principle of unity shared by all other entities. Consciousness is possible because one entity is able to "recognise" another entity and at the same time maintain its own individuality. Another way of putting this point is to say that the absolute unity participates in the activity of consciousness.

In such epistemologies the term absolute has two references or aspects. Its abstract reference is an ideal about a single consciousness that, unlike any finite consciousness, is always aware of the totality of conscious events. Its concrete reference is a present unity composed of those conscious events which have already occurred. As conscious events continue to occur the concrete reference of the term absolute changes, while the abstract reference remains the same.

That events occur in consciousness is accepted by both idealistic and Process philosophers. The former, however, cannot account for the source of the conscious activity, as the concrete content of their Absolute is a unity of all reality. Process thinkers, on the other hand, have argued that, because primordial unity has divided itself, the activity which results from the factors of unity and diversity produces concrete changes within the cosmos.

Using the model of an organism for the cosmos, it can

be argued that cosmic changes can be compared with changes within a finite organism that are brought about by new relations among its parts. These new relations change the concrete nature of the organism, while abstractly the organism remains the same.

However, in order for consciousness to occur, by the Process model thus far presented, there must be objects for consciousness, i.e. a diversity; and consciousness must both be changed by its relations to objects and also remain abstractly the same. In other words, consciousness must be composed of events -- relations. The formulation that we have now outlined, based upon the positions thus far introduced, continues to have a serious problem with its understanding of the term absolute, as referring to the unity of a cosmic conscious organism. If, as has been suggested, all activity occurs within an organic unity, then there is nothing outside of that unity. Therefore, an analogy between the cosmic organism and a finite organism or consciousness has a serious weakness. We know of no independent organism or free consciousness, as understood by Process, whose inner activity does not depend upon external objects. Indeed for Process thought it is always directly or indirectly in response to the external objects that internal activity originates. If one is to maintain the organic or consciousness model of the universe, one must consider the issue of the cosmic organism relating to something external. Thus far we have only spoken of the cosmic organism relating to its own internal structure.

On the other hand, if the cosmic organism has external objects, it could not even be considered a unity of all

reality abstractly, and diversity would have to be something other than a division of the absolute unity itself.

Of course, what we are now discussing is a metaphysical rather than a purely epistemological problem. However, as we have seen, the Process system demands that the term absolute have the same reference whether it is used epistemologically or metaphysically. Therefore, if finite conscious activity requires external objects, the point should be considered of whether this must not also be true for the cosmic consciousness.

Whitehead is the most successful of all the Process thinkers in establishing a single understanding of the concept absolute which applies equally well to finite consciousnesses and to a single universal consciousness. We begin our consideration of Whitehead by looking at his analysis of finite consciousness. In Chapter XVIII we will move with him into the field of metaphysics in order to show that his understanding of the principle of limitation, necessary for finite conscious activity, has a corresponding reference on the metaphysical level. Finally, in Chapter XIX we will come to the problem of objects for the cosmic consciousness.

Whitehead's most concise analysis of finite consciousness is to be found in his brief work Symbolism Its Meaning And Effect.[308] Here he describes conscious experience as composed of two things -- symbols and meanings. He says,

> There are no components of experience which are only symbols or only meanings... This statement is the foundation of a thoroughgoing realism. It does away with any mysterious element in our experience which is merely meant, and thereby

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[308] Whitehead, Alfred North. Symbolism Its Meaning And Effect. (Cambridge: The University Press, 1928).

> behind the veil of direct perception. It proclaims the principle that symbolic reference holds between two components in a complex experience, each intrinsically capable of direct recognition. Any lack of such conscious analytical recognition is the fault of the defect in mentality on the part of a comparatively low grade percipient.[309]

The above clearly demonstrates that Whitehead holds conscious activity to be composed of unity and diversity. Consciousness, he says, is a complex experience -- a unity -- among components. Furthermore, he is suggesting that a principle of limitation for the evaluation of conscious data participates in the process of conscious events. In particular, he says that each entity is "intrinsically" capable of direct "recognition". That is, factors in a conscious event are both related to each other and somehow independent.

The following illustrates Whitehead's point about unity and diversity:

> Our perception is not confined to universal characters; we do not perceive disembodied colour or disembodied extensiveness: we perceive <u>the</u> <u>wall's</u> colour and extensiveness... This concrete relationship is a physical fact which may be very unessential to the wall and very essential to the percipient. The spatial relationship is equally essential both to wall and percipient; but the colour side of the relationship is at that moment indifferent to the wall, though it is part of the make-up of the percipient. In this sense, and subject to their spatial relationships, contemporary events happen independently. I call this type of experience 'presentational immediacy.' It expresses how contemporary events are relevant to each other, and yet preserve a mutual independence.[310]

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[309] <u>ibid</u>. pp.11-12. [310] <u>ibid</u>. pp.17-19.

There are several factors involved in the above illustration. These Whitehead outlines for us: "...(i) that the sense-data involved depend on the percipient organism and its spatial relations to the perceived organism; (ii) that the contemporary world is exhibited as extended and as a plenum of organisms; (iii) that presentational immediacy is an important factor in the experience of only a few high-grade organisms, and that for the others it is embryonic or entirely negligible."[311]

To restate the above: First, the values of any specific sense-data depend both upon the wall and the percipient as being unique individuals. Second, extensiveness, required for perception, depends upon neither the wall nor the percipient alone, but is common to both. Third, conscious activity depends upon there being a mind participating in that activity.

Having demonstrated that Whitehead holds that conscious activity is composed of unity and diversity, we must now look at how the principle of limitation functions for the conscious mind. One factor of limitation has already been mentioned in terms of the fact that all entities share extensiveness. The other factor of limitation Whitehead says is temporal:

> Time is known to us as the succession of our acts of experience, and thence derivatively as the succession of events objectively perceived in those acts. But this succession is not pure succession: it is the derivation of state from state, with the later state exhibiting conformity to the antecedent. Time in the concrete is the confirmation of state to state, the later to the earlier; and the pure succession is an

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[311] *ibid.* p.27.

> abstraction from the irreversible relationship of settled past to derivative present.[312]

In other words the consciousness of a finite mind is limited by both the extensiveness of entities and the temporal events of its own past. Time, like extensiveness, is a unity. It is durational in the Bergsonian sense. Therefore, unity exists within the conscious entity as well as between entities. Whitehead's name for temporal unity is "causal-efficacy." Again, like Bergson's "duration", it is limited to high-grade, i.e. self-conscious, organisms.[313]

It is the particular past of an organism that causes it to have its unique individual perceptions. Thus Whitehead says,

> But what is already given for experience can only be derived from that natural potentiality which shapes a particular experience in the guise of causal efficacy. Causal efficacy is the hand of the settled past in the formation of the present. The sense-data must therefore play a double rôle in perception. In the mode of presentational immediacy they are projected to exhibit the contemporary world in its spatial relations. In the mode of causal efficacy they exhibit the almost instantaneously precedent bodily organs as imposing their characters on the experience in question.[314]

Here Whitehead makes a point consistent with Morgan's epistemology. The physical structure of the conscious organism has a direct role in perception. Indeed it is the structure of the organism's own body that represents the unity

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[312] *ibid*. p.41. [313] *ibid*. p.58.

[314] *ibid*. p.59.

between itself and the structure of its object. Whitehead further says,

> Thus in the intersection of the two modes, the spatial and temporal relationships of the human body, as causally apprehended, to the external contemporary world, as immediately presented, afford a fairly definite scheme of spatial and temporal reference whereby we test the symbolic use of sense-projection for the determination of the positions of bodies controlling the cause of nature. Ultimately all observation, scientific or popular, consists in the determination of the spatial relation of the bodily organs of the observer to the location of 'projected' sense-data.[315]

Thus unity between subject and object is the limitation imposed by the particular spatial relationships between the structure of the subject and its object. On the other hand, the unity within a subject is its particular temporal past.

Therefore, Whitehead's formulation suggests that the concept of unity has two parts; both parts allowing for diversity. The spatial unity is divided into entities, each of which have extensiveness. This suggests that the spatial limitation divides itself into centers, and thus participates in spatial events. On the other hand, there is temporal unity which appears to be somehow different for each conscious entity. It is a unity of the entity's past, and serves consciousness as a principle of limitation.

It would be quite easy to jump to the conclusion that for Whitehead, as for Alexander, the term absolute or concept of principle of limitation refers to Space-Time. However,

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[315] *ibid*. p.66.

there has been no specific suggestion that either space or time is absolute. Each conscious entity has its own time and its own space. While both space and time appear to serve as principles of limitation for conscious activity, it is not yet clear how any overall unity is achieved in the universe. The temporal unity of the individual consciousnesses, which certainly suggests that the principle of limitation participates in events, does not explain the nature of the unity between consciousnesses. Unless this latter sort of unity is explained, the principle of limitation has not been fully described.

We would expect Whitehead, as a Process thinker, to understand that the principle of limitation has the same reference both for consciousness and also for the universe as a whole. Therefore, we should not be surprised that he moves into the field of metaphysics in order to explain the principle more fully.

Our next step will be to look at Whitehead's explanation for the principle of limitation. We will then be ready to look at the issue of objects for the universal consciousness mentioned at the beginning of this Chapter.

CHAPTER XVIII: A.N. Whitehead's Explanation Of The Principle Of Limitation

"It is the task of philosophic speculation," says Whitehead, "to conceive the happenings of the universe so as to render understandable the outlook of physical science and to combine this outlook with these direct persuasions representing the basic facts upon which epistemology must build."[316] A significant portion of Whitehead's writings are devoted to demonstrating why his analysis of conscious activity does in fact agree with his metaphysical system: which metaphysic is built up not only from the data of the special science of epistemology, but also from data coming out of the other special sciences, e.g. biology, physics, etc. In the Introduction to Process And Reality Whitehead says, "Indeed, if this cosmology be deemed successful, it becomes natural at this point to ask whether the type of thought involved be not a transformation of some main doctrines of Absolute Idealism onto a realistic basis."[317] This quotation helps to point out how very central data coming from epistemology is for Whiteheadian thought. Therefore, it is appropriate to look at Whitehead's work at the end of our consideration of the state of epistemology in his day.

The first Whiteheadian suggestion for us to consider is that all reality must be understood as a single process.

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[316] Whitehead. Modes Of Thought. p.223.

[317] Whitehead. Process And Reality. p.vii.

Whitehead says,

> In other words, it is presupposed that no entity can be conceived in complete abstraction from the system of the universe, and that it is the business of speculative philosophy to exhibit this truth. This character is its coherence.[318]

Both neo-mechanism and emergence argued for a single process in the universe that is reflected in finite conscious minds. This concept makes reality a whole without the necessary introduction of ideals or categories. Such a position Whitehead sees as also compatible with physics. He says,

> That the potentiality for being an element in a real concrescence of many entities into one actuality, is the one general metaphysical character attaching to all entities, actual and un-actual; and that every item in its universe is involved in each concrescence. In other words, it belongs to the nature of a 'being' that it is a potential for every 'becoming'. This is the 'principle of relativity.'[319]

In accepting becoming as the chief metaphysical category, the activity of consciousness is seen to reflect this principle by being a relationship between a subject and an object. Whitehead says,

> All actual entities in the actual world, relatively to a given actual entity as 'subject', are necessarily 'felt' by that subject, though in general vaguely. An actual entity as felt is said to be 'objectified' for that subject. Only a selection of eternal objects are 'felt' by a given subject, and these eternal objects are said to have 'ingression' in that subject. But those eternal objects which are not felt are not therefore negligible.[320]

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[318] *ibid.* p.3. [319] *ibid.* p.30. [320] *ibid.* p.56.

In the above Whitehead admits the reality of objects, which do not depend for their reality upon the subject. Such objects may rightly be called 'eternal' as their integrity is maintained before and after their unity with the subject. Furthermore, Whitehead says that all eternal objects are available to the subject, as subjects and objects share the same characteristic of being actual entities. He uses the term 'felt' to describe the response of a subject to the 'ingression' of an object. Alexander and Morgan tended to say that a subject 'enjoyed' its object. Nevertheless, the principle involved is the same.

Whitehead also suggests that the resulting unity of subject and object produces novelty. In speaking to this Whitehead says,

> Thus the process of becoming is dipolar, (i) by reason of its qualification by the determinateness of the actual world, and (ii) by its conceptual prehensions of the indeterminateness of eternal objects. This process is constituted by the influx of eternal objects into a novel determinateness of feeling which absorbs the actual world into a novel actuality.[321]

This point he summarises by saying, "'Change' is the description of the adventures of eternal objects in the evolving universe of actual things."[322]

Therefore, according to Whitehead, the activity or process of the universe -- becoming -- is the principle of limitation for consciousness. Because of its dipolar nature this principle allows for both unity and diversity, and it

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[321] *ibid*. p.62. [322] *ibid*. p.81.

participates in the process of events. Therefore, its unity is the determinateness of the actual world. That is, its unity is the totality of relationships that make up the actual world at any given instant. Its diversity is the indeterminateness of feelings which produce novel actuality.

Having outlined what the principle of limitation is, we must next consider how Whitehead understands this principle functioning for consciousness. In other words, we must clarify that becoming is the same as conscious activity. First we will analyse becoming as the conscious activity of a cosmic entity -- God --, and second as the conscious activity of finite conscious entities.

Universal conscious activity can be explained metaphysically by the suggestion that God himself has three natures: The 'primordial nature', by which God is understood as a conceptual unity of all feelings and all eternal objects; the 'consequent nature', by which God is understood as the unity of all physical prehensions in the evolving universe; and, the 'superjective nature', by which God is understood as receiving specific satisfaction from novelty.[323]

Throughout this paper we have discussed that process must be composed of interrelations of unity and diversity, which form a self-perpetuating system. The unity and diversity in their purest forms make up the primordial nature of God. The diversity Whitehead calls eternal objects, and the unity is God's conceptual analysis of all these objects as a unity.

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[323] *ibid*. pp.121-122.

On the level of pure potentials eternal objects can only be understood as potentials for the process of becoming.

> If the term 'eternal objects' is disliked, the term 'potentials' would be suitable. The eternal objects are the pure potentials of the universe; and the actual entities differ from each other in their realization of potentials.[324]

The primordial unity is God's conceptual prehension of all eternal objects and feelings as a unity. Such a conception is a 'mental' reality; thus the primordial unity is also called the 'mental pole'. One can likewise speak of the multiplicity of eternal objects as a physical pole.

Of the mental pole Whitehead says, "This is the conception of God, according to which He is considered as the outcome of creativity, as the foundation of order, and as the goal towards novelty."[325] The mental pole functions as a plan; it is the plan that the multiplicity shall form a complex unity.

However, the multiplicity as pure potential and the mental pole as a conceptual plan have no specific physical content. This content must be supplied during the actual process by which the eternal objects form complex unities. The outcome of this process is God's 'consequent nature'. Nevertheless, in both of these two natures, God remains essentially the same. That is, God is everlastingly a unity of all multiplicity.

Of course the question can be raised as to why there is a process at all, if God is everlastingly the same. The

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[324] *ibid.* p.208. [325] *ibid.* p.122.

answer to this depends upon God's third nature -- His 'superjective nature'. God allows process because he enjoys the novelty resulting from the process. God has feelings. Each bit of novelty, which brings the universe to a greater unity, results in a satisfaction for God. It is this third nature which gives the reason for acting at all.

Thus for the universal consciousness, the unity of becoming is an abstract conception of the total unity of all relationships. The concrete content of this unity is the totality of relationships in the actual world. This is not the first time that a thinker has conceived of unity as having an abstract and a concrete aspect in consciousness. On the other hand, for Whitehead, diversity also has two aspects. Its abstract aspect is the pure potential of the eternal objects, and its concrete aspect is the novelty of new relationships in the actual world. Here a new concept is introduced into Process thought. Diversity, like unity, is given an abstract content of its own in terms of eternal objects. In other words, diversity is not merely a division of some primordial unity, but is itself equally primordial. Alexander's suggestion of Space-Time dividing itself would not be consistent with Whitehead's point.

As we will recall, the principle of limitation participated in the process of events for Alexander and Varisco by first dividing itself. Whitehead now suggests that the principle of limitation applies to the universal consciousness, rather than being a universal consciousness.

Having made note of this new element introduced by Whitehead, we will next move to the second part of our stated

purpose by seeing how the activity of finite consciousnesses is the same as becoming.

Whitehead says, "Every actual entity has the capacity for knowledge, and there is graduation in the intensity of various items of knowledge; but, in general, knowledge seems to be negligible apart from a peculiar complicity in the constitution of some actual occasion."[326] The word "consciousness" Whitehead prefers to reserve for those actual entities in which knowledge is primary rather than negligible.[327] Thus instead of saying that consciousness is a characteristic of all reality, he speaks of feeling as that characteristic. "In place of the Hegelian hierarchy of categories of thought, the philosophy of organism finds a hierarchy of categories of feeling."[328]

Consciousness arises on the level of feelings when an actual entity as subject forms a proposition concerning its object -- when propositions become part of feeling. A proposition is a judgment about the future, potential meaning of an object to a subject. In other words, on the level of consciousness, subjects not only receive data from the eternal objects composing their object, but the subject also makes judgments about the object.

The forming of propositions leads to the necessity of making further judgments. These judgments may prove to be valid or in error. However, in either case, the judgments create a novel situation -- one that could not have been predicted.

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[326] *ibid.* p.225. [327] *ibid.* p.227. [328] *ibid.* pp.232-233.

There is another metaphysical implication associated with the formulation of judgments. Judgments imply a theory of "probability." Of probability Whitehead says, "This tacit presupposition is that the particular future which is the logical subject of the judgment, inductively justified, shall include actualities which have close analogy to some contemporary subject enjoying assigned experience; for example, an analogy to the judging subject in question, or to some sort of actuality presupposed as in the logical world which is the logical subject of the inductive judgment." [329]

The problem is to understand the way in which probability arises. It arises because, first, the subject has learned in previous experience that all actual occasions arise out of a particular environment. Second, the particular elements involved in a given actual occasion have been abstracted from that environment. Third, to make a judgment about these elements is also to say something about the environment. And fourth, since in the future elements will continue to exist in a very similar environment, one has grounds for judging with high probability the future position of those elements in their environment.[330]

In other words probability arises from the fact that reality is a single process. Reality has novelty, but it is not chaotic.

Still another implication, associated with the formulation of judgments, is that they assume a unity of all

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[329] ibid. pp.288-289. [330] ibid. pp.292-293.

elements. That is, a judgment is based on the conceptual 'ideal' of a total unity based on the experience of a certain level of complex unity. In one sense a judgment is based on a vision -- it is religious. Whitehead says, regarding this topic: "Religion is the vision of something which stands beyond, behind, and within, the passing flux of immediate things; something which is real, and yet waiting to be realised; something which is a remote possibility, and yet the greatest of present facts; something that gives meaning to all that passes, and yet eludes apprehension; something whose possession is the final goal, and yet is beyond all reach; something which is the ultimate ideal, and the hopeless quest."[331]

The level of judgments is the level of feeling which has God as its felt object,[332] -- God being understood as the complex unity of all things. Above the electron, the only level of emergence significant to Whitehead is the emergence of the mental pole -- the conceptual unity of feelings and eternal objects. The feelings on the level of a mental pole are also called 'intellectual feelings.'[333]

Such intellectual feelings are normally believed to exist only in some men. However, Whitehead points out,

> We have no means of testing this assumption in any crucial way. It is however the assumption usually made; and therefore it may be presumed that there is some evidence which persuades

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[331] Whitehead, A.N. Science And The Modern World. (Cambridge: The University Press, 1925). pp.267-268.

[332] Whitehead. Process And Reality. p.349.

[333] ibid. p.386.

> people to embrace the doctrine. But in fact no evidence, one way or the other has even been produced.[334]

Therefore, while consciousness may be, as panpsychism tends to think, an element of all reality, the statement cannot be critically validated, and therefore it is not to be applied metaphysically.

Therefore, for finite consciousnesses, as for the cosmic consciousness, activity requires both unity and diversity. Moreover, for finite consciousnesses as for the cosmic consciousness, both unity and diversity have a concrete and an abstract aspect. The concrete aspect of diversity for finite consciousnesses is the object of consciousness, and the abstract aspect is a judgment about the object based on probability. The concrete aspect of unity for finite consciousnesses is the present knowledge of the subject, and the abstract aspect is an 'ideal' of a total unity having God as its felt object. Thus we may conclude that the principle of limitation functions the same for finite consciousnesses and for the cosmic consciousness.

However, as limitation for Whitehead has two abstract apsects, it is not adequate to say, along with the pre- Whiteheadians, that its abstract aspect is only that of an 'ideal' total unity. As we may recall, the term absolute is usually applied by Process thinkers to the abstract aspect of unity, which in turn is the full abstract aspect of limitation.

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[334] *ibid*. p.390.

Interestingly, Whitehead himself uses the term absolute to refer to the abstract aspect of unity, but, as we have seen, for Whitehead unity does not exhaust limitation; diversity also has an abstract aspect. We must therefore investigate how Whitehead further alters the use of the term absolute. In order to make this investigation, we must consider Whitehead's concept of 'Creativity'.

CHAPTER XIX: A.N. Whitehead's Principle Of Creativity

According to Whitehead all entities contain the principle of 'creativity'. For example he says,

> God is <u>in</u> the world, or nowhere, creating continually in us and around us. This creative principle is everywhere, in animate and so-called inanimate matter, in the ether, water, earth, human hearts. But this creation is a continuing process and 'the process is itself the actuality,' since no sooner do you arrive than you start on a fresh journey. In so far as man partakes of this creative process does he partake of the divine, of God, and that participation is his immortality, reducing the question of whether his individuality survives death of the body to the state of an irrelevancy. His true destiny as co-creator in the universe is his dignity and his grandeur.[335]

At first sight the above seems to be unclear or confused. On the one hand we are told that to participate in the creative process is to "partake of the divine". On the other hand Whitehead calls man a "co-creator in the universe." If God and creativity are rightly equated, it makes some sense to say that to partake of the process is to partake of God. However, such a position would surely imply that ultimately God alone is the creator, thus making the statement that man is co-creator rather unintelligible.

Looked at from the other side, if man is a co-creator, one must assume that he partakes of creativity in his own right. Furthermore, if he partakes of creativity in his own right, it would make rather good sense to say that creativity

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[335] <u>Dialogues Of Alfred North Whitehead</u>. recorded by Lucien Price. (London: Max Reinhardt, 1954). p.366.

must be a metaphysical principle in which entities including God participate, but each of these entities including God is subordinate to or not inclusive of creativity. If all entities contain the principle of creativity, and if no entity, including God, totally incorporates this principle, then it might seem that creativity is an abstract ideal of that which unifies all reality.

However, a concept, such as process or the principle of creativity, according to Whitehead, requires a physical object. He says,

> The objectification of God in a temporal subject is effected by the hybrid feelings with God's conceptual feelings as data. Those of God's feelings which are positively prehended are those with some compatability of contrast, or of identity, with physical feelings transmitted from the temporal world. But when we take God into account, then we can assert without any qualification Hume's principle, that all conceptual feelings are derived from physical feelings.[336]

Certainly the above is not the only place where Whitehead insists that conceptual knowledge requires an object. In Adventures Of Ideas he goes on to say, "All knowledge is conscious discrimination of objects experienced."[337]

As we said earlier, knowing is a process of interaction between subject and object. A significant aspect of knowing an object is a process of limitation, whereby the subject's and object's particular interests and values emphasise only certain relations while pushing others into the background;

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[336] Whitehead. Process And Reality. p.349.

[337] Whitehead. Adventures Of Ideas. p.227.

therefore making knowing possible. In a relative universe, in which everything participates in every other thing, a principle of limitation is always needed to make any knowledge possible.

We may well be prepared to accept these two concepts concerning the possibility of knowledge, namely: (1) that all knowledge depends upon an object, or that physical feelings always precede conceptual feelings; and, (2) that knowledge of an object is possible in a relative universe only by a principle of limitation. However, by accepting these premises we must be reminded that they both presuppose our knowledge about knowledge, and our knowledge of a principle of limitation. In other words, we must answer the questions, What is the object of our concept of knowledge? and, What is the object of our concept of the principle of limitation?

Whitehead's answer to both of these questions is God.

> If we reject this alternative behind the scenes, we must provide a ground for limitation which stands among the attributes of the substantial activity. This attribute provides the limitation for which no reason can be given; for all reason flows from it. God is the ultimate limitation, and His existence is the ultimate irrationality. For no reason can be given for just that limitation which it stands in His nature to impose. God is not concrete, but He is the ground for concrete actuality. No reason can be given for the nature of God, because that nature is the ground of rationality.[338]

God is the ultimate limit of reason, because he is the objectification of the ultimate principle of creativity. He

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[338]Whitehead. Science And The Modern World. pp.249-250.

is the object of our concept of how rationality is possible. Furthermore, he is the limit to which all concrete reference is made. Whitehead elaborates on this last statement in the following:

> Finally, there is Deity, which is the factor in the universe whereby there is importance, value, and the ideal beyond the actual. It is by reference of the spatial immediacies to the ideals of Deity that the sense of worth beyond ourselves arises. The unity of a transcendent universe, and the multiplicity of realised actualities, both enter into our experience by this sense of Deity.[339]

In other words, God reveals to us creativity as infinite possibilities, but makes such a concept available by also limiting the infinity of possibilities for those already realised. Or as Whitehead would put it,

> The limitation whereby there is a perspective relegation of eternal objects to the background is the characteristic of decision. Transcendent decision includes God's decision. He is the actual entity in virtue of which the entire multiplicity of eternal objects obtains its graded relevance to each stage of concrescence.[340]

At this point it is clearly possible to re-introduce a specific reference to the term absolute. The term absolute refers to the particular unity of realised possibilities objectified as the absolute pole of God. This is how we have defined the reference of the term absolute many times in our discussions of Process. It is a unity peculiar to a given present, which serves as the necessary object of physical feelings and a principle of limitation, and which allows for

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[339]Whitehead. Modes Of Thought. p.140.

[340]Whitehead. Process And Reality. p.229.

our knowledge of the totally undetermined unity of the principle of creativity.

> This is at once the doctrine of the unity of nature, and of the unity of each human life. The conclusion follows that our consciousness of the self-identity pervading our life-thread of occasions is nothing other than knowledge of a special strand of unity within the general unity of nature. It is a locus within the whole, marked out by its own peculiarities, but otherwise exhibiting the general principle which guides the constitution of the whole.[341]

God is the objectification of creativity in the double sense of being an object for physical feelings and a principle of limitation. The two poles of God, the absolute and the relative, are the objectifications of the ultimate categories "many" and "one".

Therefore, to partake of creativity man partakes in the divine, since only through and by God is creativity known.

> He is the lure for feelings, the eternal urge of desire. His particular relevance to each creative act, as it arises from its own conditional standpoint in the world, constitutes Him the initial 'object of desire' establishing the initial phase of each subjective aim.[342]

The absolute pole must necessarily be understood as a particular unity. It is the unity of all realised possibilities, i.e. the unity of the past of the cosmos. Of course, even understood as a particular unity the absolute pole may quite rightly be called abstract. As it stands at the very limits of man's reason, it may be only a vague background

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[341] Whitehead. Adventures Of Ideas. p.241.

[342] Whitehead. Process And Reality. p.487.

feeling. Something which Whitehead himself says could be applied here:

> We have here an example of the principle that dominates the history of ideas. There will be a general idea in the background flittingly, waveringly, realised by the few in its full generality -- or perhaps never expressed in any adequate universal form with persuasive force. Such persuasive expression depends on the accidents of genius... [343]

On the other hand, as we have already made clear, the absolute pole is a particular unity only because it is the objectification of the ultimate category of the "one", which is an aspect of the principle of creativity. To apply the term absolute to creativity, or to God equated with creativity, i.e. creativity subjectively, is to suggest that ultimately there is one particular unity.

The implications of such a suggestion were introduced before. In summary, such a suggestion implies that the process of the universe culminates in the realisation of a particular predetermined unity. God, one might say, becomes an absolute unity as the multiplicity of the relative pole is more and more taken up into the absolute pole. In which case, the absolute pole is understood as the ultimate determination of the process within the cosmos.

The above is clarified if we look again at Whitehead's concept of God. According to Whitehead God is an actual entity. In expanding this idea he says,

> Thus, analogously to all entities, the nature of God is dipolar... One side of God's nature is constituted by his conceptual experience. This experience is the primordial fact in the world,

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[343] Whitehead. Adventures Of Ideas. p.18.

> limited by no actuality which it presupposes. It is therefore infinite, devoid of all negative prehension. This side of his nature is free, complete, primordial, eternal, actually deficient and unconscious. The other side originates with physical experience derived from the temporal world, and then acquires integration with the primordial side. It is determined, incomplete, consequent, 'everlasting', fully actual, and conscious. His necessary goodness expresses the determination of his consequent nature.[344]

The issue to which the above addresses itself is how God is to be understood as an actual entity, who is the objectification of creativity for all other actual entities. The answer is that for God unity, or the conceptual pole, does not require an object. God as the objectification of creativity is the primordial embodiment of the conceptual. God's pole of unity is described as "free, complete, primordial, eternal, etc.", because it depends upon no particular unity. The unity primordial to God is of the character of the unity of creativity, i.e. undetermined.

Relative to the events which originate in the temporal world, God's conceptual pole becomes a particular unity. This particular unity is described as "determined, incomplete, consequent, 'everlasting', etc.". In other words, to this particular unity the term absolute can be correctly applied. It serves men as an object of the concept of unity. However, as God requires no object for his conceptual pole, continuing change, which from our viewpoint contradicts the term absolute, i.e. referring to a particular unity, does

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[344] Whitehead. Process And Reality. pp.488-489.

not in fact alter God's primordial nature. Indeed, the unity of whatever events originate in the temporal world correctly express the primordially, undetermined nature of unity.

This point of our discussion is well summarised by Whitehead:

> For God the conceptual is prior to the physical, for the World the physical poles are prior to the conceptual poles.
>
> A physical pole is in its own nature exclusive, bounded by contradiction; a conceptual pole is in its own nature all-embracing, unbounded by contradiction. The former derives its share of infinity from the infinity of appetition; the latter derives its share of limitation from the exclusiveness of enjoyment.[345]

God, we might say, is the Subject by virtue of his conceptual pole. That is, he is creatively objectified. He is Object for the world, however, because by a scheme of limitation his particular unity can serve as a physical feeling which gives rise to a conceptual feeling of the principle of the indeterminate "one".

Finally Whitehead says,

> The perfection of God's subjective aim, derived from the completeness of his primordial nature, issues into the character of his consequent nature. In it there is no loss, no obstruction. The world is felt in a unison of immediacy. The property of combining creative advance with the retention of mutual immediacy is what in the previous section is meant by the term 'everlasting'.[346]

What emerges from our study of Whitehead is that his

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[345] *ibid*. p.493. [346] *ibid*. p.489.

understanding of the absolute pole is chiefly a temporal concept. The absolute pole is the unity of the past in the divine consciousness. However, the past of the divine consciousness is also the whole of the pasts of all finite consciousnesses.

As we have already seen, the past does serve as a principle of limitation. The past of any consciousness limits its own present possibilities. We discussed in Chapter XVII the problem that at that point Whitehead's epistemology did not explain how the pasts of finite consciousnesses were unified. Now we have the answer in Whitehead's understanding of the concept of God's absolute pole.

Of course, the absolute pole is not the only factor which unifies reality. The fact that all entities share creativity also accounts for unity. As Whitehead said, all entities are a part of the "creative advance." The absolute pole, on the one hand, gives a unity of "mutual immediacy." In other words the whole of the past limits the mutual present of all entities, just as the past of a single entity limits its present possibilities.

However, as we have indicated many times, unless the principle of limitation participates in the process of events it is deterministic. Clearly the past does participate in the process of events. In Chapter XVII we saw Whitehead point out that past experience is an essential factor in the ability of finite consciousness to make judgments about the future meaning of its objects. Without the past being durationally present, finite consciousness has no future aim. Likewise, on the cosmic level, the absolute pole is necessary

for God's subjective aim. Without God's aim there would be no cosmic future. The participation of the past in the establishment of the future, which in turn becomes the past, demonstrates that the principle of limitation does participate in the process of events.

Whitehead suggested that the past of a finite consciousness must be joined with the presentational immediacy of felt objects before judgments can be formed. However, his understanding of the absolute pole does not allow it to divide itself into the diversity of objects necessary for consciousness. While Whitehead's absolute pole does participate in the process of events, it does not do so by dividing itself. At this point Whitehead differs from several other Process thinkers considered here.

Diversity, which is one part of the primordial potential for activity, is as necessary to the divine consciousness as it is to finite consciousnesses. Of course, the divine consciousness differs from finite consciousnesses in that it can utilise the pure potential of eternal objects. Finite consciousnesses require "objects" in which eternal objects adhere in a definite past of some actual entity. Indeed, as we saw, God could not be the object for finite consciousnesses without the absolute pole, which is his past.

The above formulation solves the great problem for Process thought concerning the understanding of the concept absolute. If, as many pre-Whiteheadian Process thinkers did, one thinks of the term absolute as referring to some ultimate principle which divides itself in order to produce diversity, then it is very difficult to consistently adopt

the analogy of a conscious organism to describe the universe, the reason being that the consciousness of an organism requires that it have external objects. Yet if the absolute principle divides itself, the division must remain internal; otherwise there would be no way of accounting for cosmic unity.

Therefore, Whitehead has suggested that the term absolute should not be applied to the whole of the cosmic consciousness, but merely to one aspect of it. External to the unity, i.e. absolute pole, of the cosmic consciousness are the eternal objects. This dipolar nature of the cosmic consciousness is a primordial fact and not the result of a division of a primordial unity.

However, we began by saying that finite consciousnesses required external objects, and we have not clarified how eternal objects serve as the external objects for the cosmic consciousness, understood as a dipolar entity. The external objects of the cosmic consciousness are the novel feelings of finite actual entities.

Here we must remind ourselves that, for Whitehead, the objects of finite consciousnesses are also feelings. The fact that feelings are both external and also internal is what makes the interaction possible between subject and object. Furthermore, as we have seen, an object that becomes an internal feeling both remains the same and is also changed. It remains the same in that the eternal objects which compose it remain changeless. On the other hand, objects are changed by the subject's judgments about them based on the subject's particular past.

Likewise, the objects of the divine consciousness, when they become internal feelings, both remain the same in terms of eternal objects, but they are changed according to the unique past of God. While God's past is called the absolute pole, this usage of the term absolute does not logically preclude objects being external to the absolute pole.

For consciousness to occur in a finite organism, that organism must be a unity, dipolar in nature, and relative to its objects. By Whitehead's formulation, the divine consciousness is also a unity, dipolar in nature, and relative to its objects. We conclude, therefore, that Whitehead has an understanding of the term absolute which is most consistent with an analogy between the activity of finite consciousness and universal activity.

Nevertheless, we are merely in the preliminary stages of outlining the full implications of Whitehead's understanding of the term absolute. The best way to further develop these implications is through illustrations such as those which make up the remaining Chapters.

PART III: THE TERM ABSOLUTE IN PROCESS THEOLOGY

CHAPTER XX: Issues For Theology

According to the Whiteheadian system reality is unified in two ways. First it is unified by the fact that all entities share a common principle of creativity. Second reality is unified by a common past retained in the absolute pole of God. Both aspects of unity are essential for conscious activity, and neither denies true diversity. However, the former is the source of pure potential. As Whitehead says, "This factor of activity is what I have called 'Creativity'." [347] The potential is made available to finite actual entities only through the actual entity God. Without God there would be no principle of limitation for finite consciousness.

Creativity itself offers an infinity of possibilities for activity. However, as we have seen in our consideration of epistemology, finite consciousness cannot function apart from some limitation of its possibilities. Therefore, the absolute pole of God is the only one of the two forms of unity that can serve consciousness as a principle of limitation, because the absolute pole, being the concrete unity of the past, limits the present of any actual entity to a finite number of possibilities, and thus provides an "aim" for that entity.

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[347] Whitehead. Adventures Of Ideas. p.230.

However, the fact that at a present instant the number of possibilities for any finite entity are limited by the absolute pole does not mean that an infinite number of possibilities cannot also exist. Because of the principle of creativity the potential possibilities open to the universe as a whole are infinite. Another way of describing the infinity of possibilities for the universe is by pointing out that the particular possibilities which are now realised were not predetermined to be realised.

God, from his unique perspective, may judge with great accuracy the probability of future events. After all, with the whole of the past for reference, God knows better than any other actual entity the probable future. Nevertheless, even God participates in creativity, which is ultimately an indeterminate activity.

The distinction which Whitehead maintains between God and the principle of creativity is a problem for Christian philosophical tradition, because tradition has generally made God the Creator. Therefore, it would have been more consistent with the tradition if Whitehead had made God the creative principle, and sole unifying factor of the universe. As it is, creativity appears to become a god beyond God. However, to equate Whitehead's dipolar God with creativity requires that one accept a deterministic system, and give up the analogy between a conscious organism and the universal activity, and the dipolar concept of the universe. These points require some explanation.

If one accepts the dipolar God as a conscious actual entity unique because of his universal perspective, then the

divine consciousness like finite consciousnesses must have a principle of limitation. Furthermore, if a dipolar God and the ultimate principle of activity, i.e. creativity, are one, then the only possible limit for the divine consciousness would be an ultimate concrete unity of all reality. Indeed, equating a dipolar God with creativity would mean that the term absolute refers to a concrete unity of all reality within God. Such an understanding of ultimate concrete unity, we have seen, implies that the activity of the universe moves toward a final goal -- a total unity. However, if the whole of reality is taken up into a concrete unity, then the Whiteheadian concept of dipolarity must be set aside. Thus equating a dipolar God with creativity cannot satisfy the overall Whiteheadian cosmology.

Of course, some objective idealisms, for example, attempted to maintain that God was conscious and yet not dipolar in the Whiteheadian sense. However, we have presented conclusive evidence against the possibility of conscious activity existing apart from relationships of true diversity.

Another alternative, that we considered, was the suggestion that the analogy between a conscious organism and the universal activity cannot be maintained. In this case one may either deny that activity is organised at all, or else one may choose something like mechanism, which says that activity is ordered by an abstract physical principle.

We have already explained why Process cannot accept traditional objective idealism or mechanism. Therefore, in order to consistently avoid determinism, while retaining the Process model for consciousness, Whitehead must avoid

associating the concept of absoluteness with the ultimate principle of activity. However, he must retain the concept of 'absolute pole' as a principle of limitation for conscious activity. Both of these he accomplishes by drawing a distinction between the unity of the single conscious entity God, and the principle of unity in creativity, which all entities share.

What this distinction suggests is that, while conscious unity depends upon God as conscious, unity qua unity does not. Likewise, while conscious unity requires a principle of limitation, in the form of God's absolute pole, unity of itself has no concrete limits. Nevertheless, we must not suppose that conscious activity is essentially different than the principle of creativity. Indeed the very existence of consciousness proves its participation in creativity. Another way of stating this last point is to say that while the activity of our particular universe follows the model of consciousness, we cannot suppose that another universe, in another epoch, might not follow a different model. Although we must add that activity would, according to Whitehead, always be composed of true unity and true diversity.[348]

Therefore, while retaining the concept of God's absolute pole and relative pole, Whitehead could not equate God with creativity. As we have seen, the term absolute must refer to both a particular concrete content and to a principle of limitation. Creativity, on the other hand, has no particular

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[348] Whitehead. Process And Reality. p.28.

concrete content, and is unlimited activity.

Nevertheless, it is possible to read some of Whitehead's major works in such a way that the term absolute would appear to apply to creativity. For example, in Process And Reality "creativity" is one of the three members of the "Category of Ultimates" along with "many" and "one".[349] Furthermore, as John Cobb points out in his A Christian Natural Theology, Whitehead's use of the concept of creativity changes. For example Cobb points out:

> In Science And The Modern World, we encounter four metaphysical principles: the underlying substantial activity and its three attributes -- eternal objects, actual entities, and the principle of limitation. In Religion In The Making, subtle but important changes have occurred in the understanding of these four elements in the philosophic system...Since God is now considered as an actual entity, we might consider the four metaphysical principles as reduced to three: creativity [above in the text Cobb refers to this as a "weak" form of substantial activity], eternal objects, and actual entities including God as a special case.[350]

Cobb concludes his very important analysis of the history and development of the concept of creativity in Whitehead by saying: "Clearly he retained throughout his life the sense that the ultimate fact is the process itself of which God, the eternal objects, and the temporal occasions are all explanatory."[351]

Undoubtedly a dilemma for theology, growing out of the

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[349] ibid. p.28.

[350] Cobb, John B., Jr. A Christian Natural Theology. Based On The Thought Of Alfred North Whitehead. (London: Lutterworth Press, 1966). pp.148-149.

[351] ibid. p.168.

idea that Whitehead used the term absolute to refer to creativity as "absolute" is already becoming clear. If creativity is really called absolute -- in the usual sense of that term --, then a distinction between it and God subordinates God to creativity in all of his aspects. In which case creativity becomes a sort of "god" beyond God. It is this very concern which drove Bishop Temple to say,

> ...if only Professor Whitehead would for creativity say Father, for 'primordial nature of God' say Eternal Word, and for 'consequent nature of God' say Holy Spirit, he would perhaps be able to show ground for his gratifying conclusions. But he cannot use those terms, prceisely because each of them imports the notion of Personality as distinct from Organism. The very reason which gives to the Christian scheme its philosophic superiority is that which precludes Professor Whitehead from adopting it.[352]

The solution to the above theological problem, taken by Lionel Thornton, was to equate God with the ultimate activity. "God," he says, "is thus Absolute Activity, not in process of realisation but in concrete unchangeable reality."[353] As we will see later, this solution poses considerable problems in relation to several important Whiteheadian concepts. In particular, we will see that this solution necessarily leads to the denial of God's dipolar nature. Furthermore, Thornton's move is unnecessary, because God's absoluteness does not depend upon his being equated with creativity. As we have seen, creativity for Whitehead does not have the attribute of absoluteness.

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[352]Temple, William. Nature, Man And God. (London: Macmillan and Co., Limited, 1934). p.259.

[353]Thornton, Lionel. The Incarnate Lord. "An Essay Concerning The Doctrine Of The Incarnation In Its Relation To Organic Conceptions." (London: Longmans Green and Co., Ltd., 1928). p.86.

One possible theological alternative to Thornton's solution is to find some way to understand the term absolute as referring to a pole of God, while avoiding the conclusion that creativity is a god beyond God. Just such a formulation, we will argue, was achieved by men such as Hartshorne and Christian. Furthermore, we will argue that this alternative is far closer to Whitehead's own position. However, we will also be forced to point out that, while both solutions do in fact adopt certain elements of Process Thought, they must finally adopt radically different understandings of central points in Christian theology.

The full implications of Whitehead's understanding of the term absolute become clearer as we consider the differences between those theological formulations that maintain the distinction between God and the principle of creativity, and those that do not. We will begin with a consideration of those thinkers who fit the former category. They are, we will demonstrate, more consistent with Whiteheadian thought.

CHAPTER XXI: Charles Hartshorne's Influence On Theology

We will begin our considerations of the implications of the Whiteheadian understanding of the term absolute with a consideration of how it helped to shape speculations, relevant to theology, which were formulated by Charles Hartshorne. "Theologian" is not the correct title to apply to Hartshorne. As he himself says, "This may make it clear that it is the philosophical not the truly theological element in the Christion tradition that I as a philosopher venture to attack."[354] However, his philosophy of religion remains very important to our study.

In general Hartshorne's work represents an attempt to understand the term absolute as referring to one pole of God, along with a relative pole. Indeed, he uses the term "absolute pole" more frequently than any other post-Whiteheadian thinker.

Hartshorne's willingness to adopt the Process understanding of absoluteness comes in part from the fact that he sees it validating what he considers to be the view of God held by most theologians and religious people; namely, "The 'stand' which theologians on the whole, still propose to retain, and which is alone self-consistent, as judged by its relations to the other strand, is the popularly familiar

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[354]Hartshorne, Charles. Man's Vision Of God. (Hamden, Connecticut: Archon Books, 1964). p.xiv.

definition of God as everlasting, all-controlling, all-knowing, and ethically-good or 'holy' to the highest possible degree."[355]

Process, he feels, can validate this view against the long standing dogmatic position, which, he will show, is, in the view of Process, filled with contradictions. The dogmatic or "secular-strand," based on Greek thought rather than Christian experience, he illustrates as follows:

> God, for all the church writers, and for many others, including Spinoza, was the 'absolutely infinite', the altogether maximal, supreme, or perfect, being. All his properties, including the popular religious ones so far as philosophically valid, were to be deduced from this absoluteness or perfection, as is so beautifully explained by St. Thomas Aquinas.[356]

Some of the implications in the secular view Hartshorne sums up in the following: "It simply denies certain all-pervasive, infinitely fundamental aspects of life -- change, variety, complexity, receptivity, sympathy, suffering, memory, anticipation -- as relevant to the idea of God."[357] Furthermore, he says that the implication of this brand of theism is that "no act can, in its consequences, be better than any other,"[358] as God in himself remains quite impassible to all human actions.

Finally, he says that this type of theism makes complete nonsense out of the incarnation. If, as he says, Jesus is really supposed to be God loving man, it is quite contradictory to suggest that God is absent from all events in the

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[355] *ibid*. pp.4-5. [356] *ibid*. p.5.

[357] *ibid*. p.125. [358] *ibid*. p.156.

temporal world.[359]

The above criticisms result in large part from the dogmatic application of the Greek view of absoluteness. On the other hand, by adopting the Process usage of the term absolute, Hartshorne gives us quite different possibilities upon which to base a systematic theology.

The point that we want to notice most carefully is that Hartshorne sees that in Process God's absolute pole is not to be equated with an ultimate or supreme unity. He says, "On the other hand, if supreme is identical with absolute or non-relative, and yet the supreme includes all things, hence all relations, the result is a contradiction."[360]

Seeing this point, he does, as we would expect, adopt the position that the absolute pole is rather one aspect of God.

> I am arguing that the absolute is, rather, an abstract feature of the inclusive and supreme reality which is precisely the personal God. If one must speak of 'appearance', then the absolute, simply as such, may be termed the appearance of ultimate reality to the abstract cognition, including the divine self-cognition in its abstract aspect. The absolute is not more, but less, than God -- in the obvious sense in which the abstract is less than the concrete.[361]

The above quotation seems to be consistent with our interpretation of creativity as being distinct from God in Whiteheadian thought. First of all, here and in Whitehead,

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[359] ibid. p.168.

[360] Hartshorne, Charles. The Divine Relativity. "A Social Conception Of God." (New Haven: Yale University Press, 1948). p.61.

[361] ibid. p.83.

the term absolute refers to only an aspect of God, and not to something that is more than God, e.g. it does not refer to creativity. Second, here and in Whitehead, the absolute pole, as an aspect of the objectified God, makes possible human knowledge of God's own "self-cognition in its abstract aspect," i.e. the totally indeterminate unity of creativity. Indeed, Hartshorne later says, "We are an absolutely inessential (but not inconsequential) object for him; he is the essential object for us."[362]

Furthermore, like Whitehead, Hartshorne argues that the absolute pole is the pole of unity of relations, and that no relations fall outside of this pole.

> If the relation of the absolute to the world really fell wholly outside the absolute, then this relation would necessarily fall within some further and genuinely single entity which embraced both the absolute and the world and the relations between them -- in other words, within an entity greater than the absolute. Or else the world itself would possess as its property the relation-to-God, and since this relation is nothing without God, the world, in possessing it, would possess God as integral part of its own property, and thus the world would itself be the entity inclusive of itself and the absolute.[363]

Thus, consistent with Whiteheadian thought, the absolute pole is a unity of all realised relationships. It serves as an object for man. Therefore, there is no god beyond God, because all realised relationships are unified in God's absolute pole. However, the potential for relationships is

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[362] ibid. pp.141-142.

[363] Hartshorne. Man's Vision Of God. pp.238-239.

possible between entities, because all entities including God share in creativity.

Having established that Hartshorne adopted the general Whiteheadian understanding of the term absolute, we may next consider how this influenced the development of his important philosophical conclusions.

In the first place, his understanding of the term absolute seems partly responsible for his re-evaluation of Anselm's ontological argument. Hartshorne says,

> What Anselm had discovered, or almost discovered, was that existence and actuality (or concreteness) are in principle distinct, and that two kinds of individuals may be conceived, those whose existence and actuality, although distinct, are both contingent and those -- or that one -- whose actuality but not existence is contingent, this second kind being superior to all others. According to this view, any individual, no matter how superior, exists by virtue of contingent concrete states; but whereas with you or me it is always possible that there should be no such states at all, with God, though any such state is contingent, that there is some such state is necessary.[364]

In studying the absolute pole as a principle of limitation, we said that while man needed a particular unity -- an object -- in order to conceptualise unity, God was primordially a unity in one aspect, quite apart from any object. Naturally, we were assuming in that discussion that just as creativity included a multiplicity as well as a unity, so God, as creativity objectified, included a relative as well as an absolute pole. This meant that the pole of unity was

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[364]Hartshorne, Charles. Anselm's Discovery. "A Re-examination Of The Ontological Proof For God's Existence." (LaSalle, Illinois: Open Court Publishing House, 1965). p.40.

necessarily made up of some relations, but the particularity of these relations was a concrete absolute unity only for man.

Picking up this general point and developing it, Hartshorne concludes that his whole formulation can be read to mean that God depends upon no specific relations for his existence, but only his actuality is contingent. On the other hand, man depends for both his existence and his actuality on a particular state, just as he depends upon a particular concrete aspect of the absolute pole. Furthermore, as man depends for his knowledge on an object, Whitehead said that, without a particular actual unity, we could have no concept of unity. Hartshorne goes on to say that to be able to know God depends upon God's existence.[365]

The fact that the concrete aspect of the absolute pole is here thought of as being merely a unity of all presently realised relationships, and not a factor of total determination, means that relations themselves are not always causally derived. "In final metaphysical analysis: that acts occur for which there is no complete causal derivation is not 'irrational' if the essential function of reason is to explicate and serve creativity (rather than to foresee its results); deity, however, cannot be conceived as a mere product of creativity, but only as its supreme and indispensable aspect, whose flexibility is coincident with possibility itself, and is thus on both sides of every contingent alternative, hence

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[365] ibid. p.53.

itself not contingent but necessary."[366]

We quoted the above in order to note that, along with Whitehead, Hartshorne understands the limits of conscious activity to be directly connected with the concept of the absolute pole. That is, the absolute pole as an object makes it possible for us to conceptualise an indeterminate unity, i.e. the unity of creativity itself. Hartshorne says,

> We are all in the free, partly-contingent divine life within our own contingency and freedom. That this is possible means that the divine life does not consist in mere 'power', mere control, but has also a passive aspect, as all life indeed must have.[367]

We are free because the principle of unity is indeterminate. The absolute pole is a particular unity in God, but it is accompanied by a relative pole. God is contingent because the absolute pole does form a unity of the past events of the temporal world.

It becomes quite clear that such a formulation would indeed make concepts such as change, variety, complexity, and sympathy relevant to our idea of God. Furthermore, it gives a basis for the evaluation of human actions. Those actions which are creative -- which promote new relations -- are of value. Hartshorne expresses it this way: Man's purpose is to be altruistic toward God, i.e. "to serve and glorify God so as to contribute some value to the divine life which at present it otherwise would not have."[368] The point being

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[366] ibid. p.71. [367] ibid. p.109.

[368] Hartshorne. The Divine Relativity. p.133.

made is expanded in the following,

> ...the exceptional status of God can itself be put as a transcendental or strictly universal rule. Thus, 'Every individual whatsoever interacts (at least) with some other individuals, and also, and in all possible cases, with God, who alone universally interacts.' This rule is absolute. For since God, in a fashion, interacts with, that is, both influences and (in subsequent states) is influenced by, himself, all individuals whatever interact with deity as well as with at least some individuals other than deity.[369]

Having shown that Hartshorne does adopt the Whiteheadian position that the term absolute refers to one pole of God, we then moved to a consideration of how this understanding of the term absolute influenced Hartshorne's general formulations about the existence of God and His nature. Now we are ready to look at certain further implications of these formulations that are especially relevant to theology. We shall consider the theological implications under the three headings of Christology, soteriology and eschatology.

Christology

The matter of Christology has already arisen in Hartshorne's list of contradictions that result from the traditional dogmatic view of God's absoluteness. Specifically he says,

> The incarnation is supposed to solve the problem also. I can only say that if it is Jesus as literally divine who loves men, really loves them, then my point, so far as I can see, is granted. If not, then the problem is unsolved. Instead of simply adding Jesus to an unreconstructed idea of a non-loving God, should we not take him as proof that God

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[369] Hartshorne, Charles. A Natural Theology For Our Time. (LaSalle, Illinois: The Open Court Publishing House, 1967). p.63.

> really is love -- just that, without equivocation.[370]

As we have seen, the idea of God is reconstructed by Hartshorne in such a way that his absoluteness does not prevent direct relations between man and God. And it is the very directness of this relationship which leads Hartshorne finally to say,

> Although I believe the doctrine of the Incarnation enshrined important religious truth, I feel in honesty bound to add the following. I very much doubt if there ever has been or ever can be a form of theism which will enable such phrases as 'Jesus was God' or the 'divinity of Jesus' to have a sufficiently unambiguous meaning to entitle them to serve as requirements for Christian unity.[371]

It is not difficult to understand the "important religious truth" which he refers to; namely, as he said in the previous quotation, Jesus, if he has any meaning at all, must be an example of God's love for men, i.e. God's relatedness to man. Notice, however, that we did not refer to Jesus as "the" example or revelation of God's love.

Such a stand would be impossible from the Process viewpoint, partly because of its peculiar understanding of the term absolute. God as absolute, in the traditional or Greek sense, cannot relate directly to man. However, by the Process view, the absolute pole, which is nothing other than

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[370]Hartshorne. Man's Vision Of God. p.165.

[371]Hartshorne, Charles. Reality As Social Process. (Glencoe, Illinois: The Free Press, 1953). p.152.

the particular unity of relationships between God and the world, is itself the objectification of God's participation with man that Jesus is supposed to reveal. In other words, we know God by our own participation in creating with God.[372] God's relation to man is not to be understood in terms of a single event such as the incarnation; rather God relates to man through all events.

Nevertheless, Jesus may be more significant than the above seems at first to allow. Hartshorne says,

> The infinite fullness of the divine life is empirical not metaphysical. Empirical science and theology (revealed theology is in this sense empirical) are the sources for any knowledge we have of God beyond the bare outline of the dimensions of his being. That he has an infinitude of contingent features is metaphysical; what these features are is not ... Only philosophy, science, and religious theology, theology drawing upon special experiences of gifted individuals and groups, can together furnish man with his greatest measure of such total knowledge.[373]

Jesus may well fit into the category of "gifted individuals". However, as Hartshorne himself sees, from the traditional theological viewpoint, to say this is merely to assert "...the truism that a certain man (like all things, but more richly or purely than others) is a manifestation of divine love."[374]

The problem of how Jesus can represent a unique relationship between God and the world, which results in part

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[372] Hartshorne. Anselm's Discovery. p.51.

[373] Hartshorne. Man's Vision Of God. pp.345-346.

[374] Hartshorne. Reality As Social Process. p.153.

from the understanding of the term absolute, will regularly reoccur in our study. Indeed the problem will become more apparent when, in studying men such as Thornton, we can observe that he must give-up the Process understanding of the term absolute at the point of Christology.

Soteriology

The point at which we will take up the topic of Soteriology is with a consideration of the common Christian analogy of participation in the 'Body Of Christ', as a description of the salvific state. To begin with St. Paul refers to Jesus as the head of the body. Such an organic-social analogy is open to at least two quite different interpretations, called by Henri Bergson "closed" and "opened" understandings of society. Bergson says, "...if we wish to deal with fully complete societies, clear-cut organizations of distinct individuals, we must take the two perfect types of association represented by a society of insects and a human society, the one immutable, the other subject to change; the one instinctive, the other intelligent; the first similar to an organism whose elements exist only in the interest of the whole, the second leaving so wide a margin to the individual that we cannot tell whether the organism was made for them or they for the organism."[375]

In large part the interpretation of an organic-social

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[375]Bergson, Henri. The Two Sources Of Morality And Religion. trans., R. Ashley Audra and Cloudesley Brereton. (Garden City, New York: Doubleday Anchor Books, not dated). p.117. First published in 1932, the English translation appeared in 1935:(copyrighted by Henry Holt and Company, New York).

analogy that one chooses depends upon his understanding of the concept of absoluteness. According to Karl Popper, if one adopts the Platonic understanding of God's absoluteness, a closed society results from that interpretation.[376]

Popper points out that for Plato forms, including the form of the Good, are changeless. Change can only be away from the forms.[377] Man can change only for the worse, i.e. decay. Only reason can break the law of decay by allowing man to return to the forms.[378]

Following the Platonic concepts, to become part of the "Body Of Christ" is to return to the divinely predetermined plan. It is to become a part of a society with a single purpose as determined by Christ, its head.

> This dream of unity and beauty and perfection, this aestheticism and holism and collectivism, is the product as well as the symptom of the lost group spirit of tribalism. It is the expression of, and an ardent appeal to, the sentiments of those who suffer from the strain of civilization.[379]

Popper's argument seems conclusive on the point that by his understanding of the Greek interpretation of absoluteness, salvation must mean conformity to a predetermined plan. Salvation is the sacrificing of one's individuality for the common good of the whole. The rejection of individualism Popper traces to "Plato's identification of individualism

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[376]Popper, K.R. The Open Society And Its Enemies. (London: Routledge & Kegan Paul, Ltd., 1952). Second Edition, revised. Vol. I. p.3.

[377]ibid. p.14. [378]ibid. p.20. [379]ibid. p.199.

with egoism (which) furnishes him with a powerful weapon for his defence of collectivism as well as for his attack upon individualism."[380] As we move ahead it will become clear that the "Body of Christ" analogy often falls under the influence of the so-called Greek understanding of absoluteness.

Certainly Process is interested in finding an analogy to describe relations. "Accordingly," says Hartshorne, "a principal task of any theology is to examine the relations in which things stand in our experience in order to discover the direction in which the indeed superior, but not in every sense incomparable, relations to God are to be sought."[381]

However, such relations cannot be established on the basis of man coming into line with a predetermined plan of unity. Granted, Process does think of the absolute pole as a unity of relationships, just as the "Body of Christ" is a unity of relationships; however, Process' absolute pole is not ultimately a particular unity. Thus the very useful organic-social analogy must take on quite a different emphasis for Process:

> In sum, then, God's volition is related to the world as though every object in it were to him a nerve-muscle, and his omniscience is related to it as though every object were a muscle-nerve. A brain cell is for us, as it were, a nerve-muscle, and a muscle-nerve, in that its internal motions respond to our thoughts, and our thoughts to its motions. If there is a theological analogy, here is the locus. God has no separate sense organs or muscles, because all parts of the world body directly

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[380] ibid. p.101.

[381] Hartshorne. Man's Vision Of God. p.174.

> perform both functions for him. In this sense the world is God's body.[382]

This use of the above analogy clearly implies the necessity of real individuality. The necessary unity is one for individuals, and as such it is not a unity which makes for a final and perfect harmony.

> We must accordingly admit that in some sense the world body is not an absolute, perfectly harmonized unity. It may be absolutely unified in so far as unity is the basis of co-presence to one awareness, the divine omniscience; but there is experiential warrant for admitting that a kind of conflict and evil is compatible with such co-presence, since otherwise we could not ourselves be aware of conflicting factors.[383]

If there is an ultimate concrete unity one may think of evil as being overcome through perfect harmony. On the other hand, if the absolute pole is merely a unity of the various relationships growing out of the temporal world, perfect harmony is a contradiction, and in that sense evil cannot be overcome.

However, Hartshorne says,

> The justification of evil is not that it is really good or partly good or necessary to good, but that the creaturely 'freedom' from which evils spring, with probability in particular cases and inevitability in the general case, is also an essential aspect of all goods, so that the price of a guaranteed absence of evil would be the equally guaranteed absence of good... Risk of evil and opportunity for good are two aspects of just one thing, multiple freedom; and that one thing is also the ground of all meaning and all existence.[384]

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[382] _ibid_. p.185. [383] _ibid_. p.195.

[384] Hartshorne. _A Natural Theology For Our Time_. p.81.

The understanding of the term absolute in Process affects soteriological formulations in such a way that the concept of the overcoming of evil by a perfect harmony is quite inconsistent. This is certainly true in the sense in which Jesus is thought to overcome evil. Indeed, according to Process the price of overcoming evil would be to destroy the possibility of good. Works, as we have said before, can only be good if God relates to man, and in order to have such relationships the Process understanding of the term absolute as referring to a pole of God must be allowed.

Eschatology

In a strict sense of "last things" one can hardly speak of a Process eschatology. It is of course true that Process is interested in the future. It looks to the infinite possibilities for the universe as a great hope for mankind. Whitehead himself says, "I wish I could convey this sense I have of the infinity of the possibilities that confront humanity -- the limitless variations of choice, the possibility of novel and untried combinations, the happy turns of experiment, the endless horizons opening out."[385]

Yet, influenced by an understanding of the term absolute, this hope is not an eschatology. The new, as we know, is the result of new relations, which in turn form a part of the concrete content of God's absolute pole. However,

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[385] Dialogues Of Alfred North Whitehead. Price. p.160.

Hartshorne points out, "It is true that there can be no absolutely maximal complexity; however, transcendence as such is not properly defined as an unsurpassable maximum of this or that."[386]

The absolute pole, being the objectification of a totally indeterminate unity, cannot be properly understood as a maximal complexity -- a certain predetermined level of relatedness. That would imply that there is a finite number of possible relationships, and that after these have been achieved the absolute pole is realised as a maximal complexity. While such a view would indeed allow the creation of an Absolute in time, it contradicts itself by the assumption of an absolute determination standing behind the absoluteness of temporal relations. This Whiteheadian Process, as we have seen, does not affirm. Yet some writers will attempt to make something like this the Process position.

In other words, we may say that from the point of view of our interpretation of Whiteheadian thought, shared by men such as Hartshorne, Process is 'everlasting'. There are no "last things" in an ultimate sense.

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[386]Hartshorne, Charles. Creative Synthesis And The Philosophic Method. (London: SCM Press, 1970). p.236.

CHAPTER XXII: William Christian's Influence On Theology

William Christian, like Hartshorne, is perhaps better called a philosopher than a theologian. However, his book An Interpretation Of Whitehead's Metaphysics needs to be considered, at least briefly, because it is a strong re-emphasis of the fact that the understanding of the term absolute in Whiteheadian Process thought should be interpreted in a way similar to the one that we have seen developing in Hartshorne.

In his well known discussion of "actual occasions" Christian makes it quite clear that the "absolute" cannot be an ultimate principle of concrete unity of all reality. He says,

> The satisfaction of an actual occasion is an immediate feeling which, when it perishes, exists as an object for occasions which succeed it... In its feeling of satisfaction the occasion has become a complete and fully concrete thing. If an occasion were only a process of internal change, it would not be complete or fully concrete.[387]

The point seems to be that an entity, or occasion, cannot be fully concrete without its own unique aspect of unity. The defence of this view is quite significant for our purposes. For it suggests that if Process' absolute pole is equated with the principle of unity, then no entity

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[387]Christian, William A. An Interpretation Of Whitehead's Metaphysics. (New Haven: Yale University Press, 1959). pp.46-47.

other than God would have a concrete unity of its own. The foregoing is the same as denying that a true diversity exists among actual entities. Therefore, a distinction must be made between God's unity and a unity shared by all entities individually.

Christian points out that, given the fact that there must be a real multiplicity in order to account for activity, the boundaries of each actual occasion must be definite. That is, each actual entity must have a unity of its own. Such definite boundaries may be accounted for scientifically by the thesis that no two actual occasions can have any spatiotemporal parts in common.[388] If, as was suggested before, the absolute pole, as a particular unity, is part of an actual entity -- God -- then it could not include other actual occasions' spatiotemporal parts.

The absolute pole, understood as the ultimate principle of unity, suggests Christian, does not allow for individuality.

> The implicit criticism is that philosophers of Process have left out a doctrine of real individuals. They have not done full justice to our experience of the world. A notion of real individuals, in which ends are not only aimed at but attained, is necessary to make the notion of process itself intelligible.[389]

Specifically Christian argues that the absolute pole, while itself a unity, does not provide unity for "events". It is a unity of objects and not of events. It is, so to

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[388] *ibid*. p.104. [389] *ibid*. p.117.

speak, the Object of objects. It includes the sum total of the past. To clarify:

> ...objects differ from events in relation to space and time. Objects are nonextended, have multiple location, and coincide. Events on the contrary are extended, have single location and do not coincide.[390]

Furthermore, Christian believes that Whitehead intended to suggest just such a concept. "He thinks the 'underlying unity', which Bradley rightly asked for, does not have to be the Absolute."[391] If the Absolute and the principle of unity were one and the same, the Absolute would prevent other entities having their own unity, and thus would determine their organisation.

While the absolute pole provides the principle of limitation necessary for conscious activity, the unity of individual events comes, as we have seen, through the principle of creativity. To this latter 'underlying unity',creativity, the term absolute does not apply.

Because Christian sees the term absolute applying to one aspect of God, and not to some ultimate principle of unity, he is in the position to allow God to participate in the process of events. Christian rightly sees that Whitehead's radically different understanding of the term absolute helps to account for a new theological question. "Unlike that provoked by traditional theology, which forces us to ask: How can an utterly unchanging being have any real knowledge

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[390] ibid. p.179. [391] ibid. p.236.

of the changing world?, the question Whitehead's view provokes is: How can a constantly changing being, have a fully determinate experience of the changing world?"[392]

Christian's answer to this latter question is that a clear understanding of the absolute pole removes any possible dilemma. The absolute pole is enjoyed by God as his "immediate satisfaction." However, this satisfaction is not complete. The best way to express its incompleteness is by saying that God's primordial nature, i.e. the indeterminate unity of pure creativity, objectified in his absolute pole, cannot be satisfied by any particular unity. Of course Christian does not put it in just these words.[393] He says, "Now God's aim is at maximum intensity of experience for himself and for the world."[394]

Whatever particular unity is achieved, God's aim is toward the still existing infinity of possibilities. While he holds the past as a particular object and limitation, he is also the source of an aim which directs activity beyond a particular satisfaction. As Christian points out,

> Again, the continuity of the world in time requires the doctrine of God. The past which has perished can be given for the present and impose conformity on it, because God is the ontological ground of its givenness. The givenness of the past for the present, and the conformity of the present to the past, is the basis in experience for the continuity of time. The temporal continuity of standpoints of actual occasions is an abstract aspect of the influence of actual occasions on their successors. And since the influence of actual occasions requires God for its explanation,

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[392] ibid. p.296. [393] ibid. p.297. [394] ibid. p.308.

> the temporal continuity of the extended world requires the doctrine of God.[395]

Only because the absolute pole is the formation of a particular unity, whose content is not all of reality, can true individuality co-exist with the concept of the absolute pole. The absolute pole is thus an aspect of God, and the term absolute cannot be applied as descriptive of creativity. As Christian says, "...God is neither absolutely complete nor absolutely independent..."[396]

In some other Process theologians we will see the suggestion that the concept of eternal process can be maintained if a dipolar God is equated with creativity, in a way that makes the absolute pole the sole principle of unity. Such a formulation is characterised by the suggestion that the absolute pole is a principle of a particular kind of world unification which is God's aim. Once this unification is achieved, harmony will reign, but individuals will continue to interact. This is tantamount to the concept of a spiritual society in which there is unity of purpose but individuality continues. It is a unity "in which" individuality is allowed, not a unity "along with" individuality. Such an interpretation would imply that finally, if not at present, God does include the cosmos within himself. That is, the absolute pole becomes the unity of the cosmos; the absolute pole becomes a determinate principle of unity.

While this may indeed be a view easier to reconcile

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[395] *ibid*. p.335. [396] *ibid*. p.375.

with traditional dogmatic positions, Christian well argues that it is not the Whiteheadian viewpoint:

> (a) God is not the cosmos, nor does he include (in Hartshorne's sense) the cosmos; and (b) his actuality is always conditioned though never determined by the cosmos. This view agrees with traditional theism, against traditional pantheism and panentheism, in asserting that God is neither identical with nor inclusive of the world. It agrees with panentheism and traditional theism, against traditional pantheism, in asserting that God transcends the world. And it agrees with traditional pantheism and panentheism, against traditional theism, in asserting that God is conditioned by the world.[397]

The points made by Christian in the above quotation each reflect the Process understanding of the term absolute. First, God does not include the cosmos, because there is no ultimate concrete unity of all reality. The absolute pole of God is merely a unity of "objects" and not of "events." Second, God is conditioned but not determined by the cosmos, because events become objects but the absolute pole does not ultimately determine events. The past merely limits present possibilities. On the other hand, if the absolute pole was

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[397] ibid. p.407. The reference to Hartshorne concerns a position once held by him, against Christian's, that God in Whiteheadian thought could be considered a society of actual entities. (cf., e.g., Man's Vision Of God. pp.238-240.) Hartshorne modified this view in his later works. He says, "I once held this doctrine of absolute simultaneous interaction myself. I cannot now believe it. But there does seem to be a puzzle. Contemporaries apparently form a whole which is actual or concrete, and yet this whole is not a subject... True, the whole will eventually be in a subject, but not until a long time has passed, unless one conceives deity as somehow escaping relativity principles. (As ubiquitous, God must somehow be a, in principle, unique case.) However, I should deny interaction between God, as in a certain state, and any other individuals in a strictly simultaneous state. On the most concrete level, that of states, there is action, not interaction." (Creative Synthesis And The Philosophic Method. p.115.).

considered to be an ultimate unity, then God would -- if not at present at least finally -- include the cosmos. Likewise, if the absolute pole was understood to be the determinate organisation of activity, events would not condition God.

From our consideration of the work of Hartshorne and Christian we may now list several guidelines for theologians, relative to the Process understanding of the term absolute, which must be observed, if a strict application of Whiteheadian metaphysics is to be made:

(a) The dipolar God should not be equated with creativity, as that would make the term absolute refer to creativity, and suggest that the organisation of activity is predetermined.

(b) The absolute pole of God should not be equated with an ultimate principle of unity, as that would suggest that the organisation of activity is predetermined.

(c) The principle of unity, of which the absolute pole is an objectification, is indeterminate.

(d) The concept of divine perfection does not depend upon God being an ultimate unity, rather upon God being a concrete unity of the highest possible degree.

(e) God and the world relate through all events, and together participate in creating the absolute pole.

(f) As the unity of the absolute pole does not include the cosmos, it is not a guarantee of harmony or of the overcoming of evil.

(g) The absolute, as a pole of God, implies the priority of process, and does not lead to an end of that process.

CHAPTER XXIII: Examples Of Whiteheadian Process Theologians

In this Chapter we will consider a selection of some of the works of Schubert M. Ogden and Daniel Day Williams. These two writers do not exhaust a category in which one might also include others. However, their works will serve as especially clear illustrations of some of the theological implications relative to the Process understanding of the term absolute.

A. Schubert M. Ogden

Ogden clearly accepts the position that God is the objectification of the creative principle of reality, but that all entities participate in creativity. He says,

> I hold that the primary use or function of 'God' is to refer to the objective ground in reality itself of our ineradicable confidence in the final worth of our existence. It lies in the nature of this confidence to affirm that the real whole of which we experience ourselves to be parts is such as to be worthy of, and thus itself to evoke, that very confidence. The word 'God' then, provides the designation for whatever it is about this experienced whole that calls forth and justifies our original and inescapable trust...[398]

The designation of worth is the way that God has existential meaning for man. Such a meaning comes only from a God understood in terms of the Process dipolar concept. As Hartshorne pointed out, and as Ogden restates, a totally

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[398] Ogden, Schubert M. The Reality Of God. (New York: Harper & Row Publishers, 1966). p.37.

absolute God means that all human actions are devoid of worth, i.e. have no ultimate significance.[399]

On the other hand, a God who is dipolar gives meaning, as human events help to create the very unity which is his absolute pole. Without God and the absolute pole, human actions would indeed appear random and without significance. The absolute pole is the objectification of a specific whole, without denying man's contribution to that whole. Just this objectification, according to Ogden, often appearing in a form called "myth", is a part of human experience; "...myth is characterized, first of all, as a way of representing linguistically a basic field of human experience -- namely, that field in which each of us is aware of himself and the world as parts of an encompassing whole."[400]

Indeed, we can only account for our feeling of the whole because of the absolute pole, which is an object of that feeling. Ogden is in close agreement with Whitehead that physical feelings in man always precede conceptual feelings.

Ogden's point is that once the myth of God is viewed in terms of the Process understanding of God's dipolar nature, the myth is "De-mythologised", i.e. it is related to human experience. The Process understanding of the term absolute allows us to get behind the myth to the existential situation which it objectifies,[401] namely, that events have worth

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[399] ibid. p.51. [400] ibid. p.114.

[401] Ogden, Schubert M. Christ Without Myth. "A Study On The Theology Of Rudolf Bultmann". (London: Collins, 1962). p.30.

because they influence the trend of formation in the whole of reality.

Having argued that the Process understanding of the absolute pole relates God to the existential situation, Ogden fully realises that the price of this formulation is a necessary re-interpretation of Christology. Ogden was a student of Bultmann's, but felt that his teacher was not prepared to fully de-mythologise Christ. Ogden points out,

> Contrary,to Bultmann, who, significantly, offers no scriptural support for his claim, the New Testament does <u>not</u> affirm that in Christ our salvation 'becomes possible'. It affirms, rather, that in him what has always been possible now 'becomes manifest,' in the sense of being decisively presented in a human word of witness.[402]

Ogden's Christology relates to our interests, because in part it is the understanding of the term absolute, which makes it impossible to assign overall significance to a single event. The absolute pole, the unity of the past, is composed as the result of all events. It is this whole which allows man to see his worth. All human actions are therefore "redeemed", i.e. given worth as part of the whole, in God. "The claim 'only in Jesus Christ' must be interpreted to mean, not that God acts to redeem only in the history of Jesus and in no other history, but that the only God who redeems any history -- <u>although he in fact redeems every history</u> -- is the God whose redemptive action is decisively

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[402] <u>ibid</u>. p.167

re-presented in the word that Jesus speaks and is."[403]

Jesus clearly does not present a new order of reality. He does not represent a culmination of one absolute plan for all of history. Rather, according to Ogden, he shows us that all history is redeemed. "To say with the Christian community then, that 'Jesus is the decisive act of God' is to say that in him, in his outer acts of symbolic word and deed, there is expressed that understanding of human existence which is, in fact, the ultimate truth about our life before God; that the ultimate reality with which we and all men have to do is God the sovereign Creator and Redeemer, and that in understanding ourselves in terms of the gift and demand of his love, we realize our authentic existence as men."[404]

From man's point of view we are related to creativity only as it is objectified in God. As redeemer of history, God is the actual concrete reality which gives man's actions worth; and God is creator in the sense that without his concrete reality creativity would not be available. Therefore, "The purpose of Jesus' ministry, whether of word or deed, was far less to speak about man and his relationship to God -- although he did that, too -- than to speak of that relationship so that it itself could be encountered in its full existential reality."[405] In other words, Jesus shows that we are all of God. That is to say, God's absolute pole is

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[403] Ogden. The Reality Of God. p.173.

[404] ibid. pp.185-186.

[405] Ogden. Christ Without Myth. p.190.

made up of our redeemed history. We participate in a whole because of our contributions to that whole.

Ogden argues that his understanding is sufficient to make Jesus a decisive act.[406] However, Jesus reveals that all history is redemptive history; his is not a uniquely redemptive history. Clearly, this is a considerable departure from many other views, which do think of Jesus as an uniquely redemptive history. Ogden's alternative position concerning Jesus results in large part from the fact that the term absolute in Process must be understood as referring to a unity of all past or realised events, and not to a particular predetermined unity, which can be accomplished through a single event.

Ogden's formulations also influence, as he sees himself, eschatology.

> Hence, from the standpoint of Christian faith itself, none of the traditional eschatological symbols may be thought to refer to things or events in principle beyond our present experience and knowledge. This is because their real reference is always to the abiding structure and meaning of our actual existence here and now, which faith presently understands. They are, we must say, ways of symbolizing or representing the promise implied by the reality of God, which promise is known and affirmed by Christian faith whenever it becomes actual.[407]

The promise of the reality of God is the redemption of all history. It is not the promise of a particular end to

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[406] Ogden. The Reality Of God. p.186.

[407] ibid. p.210.

history. As we said earlier, all technical references to "last things" lose their meaning if the absolute pole is not a particular ultimate unity -- either predetermined or yet to be finally determined.

B. Daniel Day Williams

Having seen how the Process understanding of the term absolute was adopted and then applied by Ogden to Christology and eschatology, we will briefly consider some of the ideas introduced by Daniel Day Williams. Williams' book The Spirit And The Forms Of Love is an attempt to give meaning to the concept of divine love through the application of Process thinking. Here we will also see the particular influence of the Process understanding of the term absolute. Williams says,

> When we search for the unity of love amidst those forms we discover that love has a history. The spirit is not a static ideal but a creative power which participates in the life it informs. Here is the key to everything we shall be saying in the discussion of love.[408]

What Williams calls "the spirit of Love" appears to have the very qualities that we have heretofore associated with the Whiteheadian principle of creativity. Indeed, we will see that he in fact makes love meaningful by substituting it for that principle, formulated by Process.

He begins his very interesting book with a discussion

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[408] Williams, Daniel Day. The Spirit And The Forms Of Love. (London: James Nisbet & Co., Ltd., 1968). p.4.

of the history of the understanding of love as it developed within the Western Christian tradition. He speaks of three historical formulations which he calls the Augustinian,[409] the Franciscan,[410] and the Evangelical or Reformation concepts.[411] His descriptions of these positions, for our purposes, are not as important as the fact that he finds it necessary to reject each of them.[412]

However, he is most sympathetic to Augustine's formulation of love. Nevertheless, Williams sees the Augustinian concept of God as inconsistent with his formulation of love. Williams says, "What Augustine does is to conceive God the Creator and Redeemer with all the absolute aspects which neo-platonism has ascribed to the trandscenent and changeless One."[413] Williams cannot accept the neo-platonic concept for the following reasons: (1) It denies human freedom; (2) It makes the new impossible; (3) It makes the human world of change an inferior world; and, (4) It makes it impossible to account for the Incarnation and the Atonement.[414] Indeed, says Williams, love can have no meaning apart from individuality, freedom, action and suffering, causality, and impartiality[415] -- the very things which a neo-platonic understanding of God as the Absolute make impossible for God.

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[409] *ibid*. p.53. [410] *ibid*. p.67.

[411] *ibid*. p.76. [412] *ibid*. p.90.

[413] *ibid*. p.92. [414] *ibid*. pp.95-100.

[415] *ibid*. pp.114-122.

Therefore, if we wish to see God participating in love, we must have a formulation in which his creative and redemptive roles do not depend upon his being "absolute" in what Williams calls the neo-platonic sense.

> If God is love and the ground and the structure of love, then he remains in the absolute integrity of his being what he is throughout all time and all circumstances... Yet God constitutes with his creatures the metaphysical situation in which their love can be real, and in which love between himself and the creatures can be actualized.[416]

In other words, Williams wants to make a distinction between God as in some sense absolute, and God as participating in the spirit of love. The way in which Williams formulates his own position on love is by making the term absolute refer, not to an ultimate plan or unity, but rather, to a flexible state. He says,

> The Kingdom of God is the goal of his creation, but we need not conceive the Kingdom as a fixed 'state of being' toward which things tend. The Kingdom of God is fulfilment of God's being in relation to every creature, and if being is love, then the Kingdom must be an infinite realm of creative life.[417]

Of course Williams has introduced theological terms to express his point, but behind them we can clearly see the influence of the Process understanding of the absolute pole. Just as his term love has the characteristics of creativity, so his Kingdom of God is similar to Process' absolute pole. Both the Kingdom of God and the absolute pole are unities

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[416] *ibid.* p.125. [417] *ibid.* p.135.

of relationships between God and man. Neither are fixed states, although they are both objective realities. Both the Kingdom and the absolute pole are spoken of as fulfiling God. Thus Williams makes a distinction between the unity of love in which all entities participate, and the unity of God's Kingdom.

Furthermore, Williams goes on,

> What it means for God to love the world, to suffer, to give freedom to the creatures and to will communion with them is the very mystery of existence. We must not equate our being with God's and say that love, suffering, freedom, and creativity, mean for him precisely what they mean for us. What we can do, however, within the perspective of Christian faith, is to give an account of the love of God which does not make nonsense of the profoundest aspects of love in human experience. If we say that the imago dei in man is his creation for communion with God and the creatures, we mean that God wills communion on terms of man's real freedom and responsiveness.[418]

In other words, man like God participates in the spirit of love, just as for Whitehead all entities participate in the principle of creativity. The term absolute does not apply to love. Love is not a concrete unity nor a principle of limitation, rather it is a dynamic principle of communion, i.e. freedom and responsiveness. On the other hand, the term absolute would apply to the factor of God's being in relation to every creature. No other entity relates to "all" entities. Therefore, the term absolute is applied to God in terms of his unifying of relationships. Because of God's unique relatedness, no other entity, Williams points out, has the exact

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[418] ibid. p.137.

same experiences as does God. In other words, the human individual's participation in love is here described as God's will that man should commune with him. This is God's will because he himself participates in the principle of love. "Man, created in God's image, is created for participation in the infinite life of communion within the everlasting creativity of God."[419]

Such an analysis says Williams is proven true by the fact that it fulfills the basic human longing. "Begin with the assertion that the fundamental human craving is to belong, to count in the community of being, to have one's freedom in and with the response of others, to enjoy God as one who makes us members of one society."[420]

For Williams the absolute pole or Kingdom of God is not only a unity, but it is also a principle of limitation. He says, "Something must re-create the capacity to belong in the society of God's creatures so that man finds his security in giving himself to the service and enjoyment of God and His Kingdom as the ultimate context of every human love."[421]

Love in itself is an unlimited potential for new possibilities of relatedness. However, man requires some limitation on his possibilities. That is, as Williams says, man must have an ultimate context to which he can refer every human love. This context is God's Kingdom. Thus God's Kingdom serves both as a unity and a principle of limitation.

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[419] *ibid*. p.138. [420] *ibid*. p.146.

[421] *ibid*. p.149.

It can therefore rightly be called "absolute" by the Process understanding of that term.

Based on Williams understanding of love and the Kingdom of God, the incarnation and atonement have radically new meanings. Beginning with the incarnation:

> What Jesus reveals on the cross surely is not that human love suffers while divine love does not. What he reveals is the love which does not shirk suffering, and that love is God himself at work... The truth of impassibility is that God's love is the everlasting power and spirit of deity... God's love is absolute in its integrity forever.[422]

In other words, Jesus, according to Williams, does not make man's relationship to God possible, rather he demonstrates the nature of God's relationship to man. God relates to man not in a single event, but through all events. Therefore, of atonement Williams says,

> Atonement is creation. The new community brought into being through the renewal of love has in its structure the experience which brings about the renewal.[423]

Williams also says, "Love is not possession, but participation."[424]

The Kingdom of God, which Jesus spoke about, is not a future state in which men are finally brought into relation with God. Instead, the Kingdom already exists for all who are aware of their participation with God in creative acts of love. Furthermore, participation with God is constantly renewed as new possibilities of love are realised by man. "Atonement is creation," means that as human events enter

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[422] ibid. p.185. [423] ibid. p.187. [424] ibid. p.209.

into the unity of God's absolute pole, that unity becomes ever new -- a new community of love.

If the Kingdom was thought of as a concrete future state, it would be a predetermined unity within God. However, as Williams said, "Love is not possession but participation." Man could not participate in something already determined, because his action would have no ultimate significance. If man's actions have no ultimate significance, then he does not relate to God.

On the other hand, it is because of the significance which the absolute pole, i.e. God's Kingdom, allows man's actions to have that atonement becomes possible. Apart from God there could be no significant acts by Williams' formulation. Therefore, Williams does understand man as being in need of God for atonement.

In summary it may be helpful to review how Ogden and Williams attempt to formulate in theological terms the philosophical guidelines which we indicated were necessary in order to adopt the Whiteheadian understanding of the term absolute, (cf. p. 271). The key problem, of course, is to avoid equating God with creativity in such a way that the term absolute must logically refer to a determinate plan of unity. Ogden avoids this by suggesting, much like Christian, that God's wholeness is the objectification of man's participation in the creation of the unity of the universe. Williams, somewhat differently, speaks of love as the essential creative reality in which both God and man participate. The purpose in either case is to avoid making God an impassible "Absolute", and the way they do this is

to understand God's absoluteness as somehow distinct from a general principle of unity in which all entities, including God, participate.

For both men God's unity is understood as redeemed history; that is human history given worth because it participates in the shaping of reality. All history becomes the history of the relationship between God and the world, because of God's redemptive act in making it a unity. The making of this unity is a creative function shared by God and man. However, God's further creative function is to open for men new possibilities of relations beyond any particular unity.

The absolute pole, the particular unity of redeemed history, is called by Ogden the object of the experience of the whole, and by Williams the Kingdom of God. Because of the nature of the absolute pole, neither of these can be static.

As all history is redeemed, Jesus can hardly be called the Redeemer. Ogden argues, therefore, that his role is to re-present for our conscious awareness that which is implicitly revealed to all men in their feeling of the worth of human actions. Likewise, Williams says that Jesus exemplifies that a relationship of love is the essential nature of God. In neither case does Jesus' incarnation totally change the nature of the God-World relationship, it merely enriches it -- perhaps to the highest possible degree. Of course, any other role for Jesus would suggest a separation existing between God and man prior to Jesus.

The above does not suggest that these men want to play-

down Jesus' significance. Once man sees his worth clearly objectified, or sees the principle of love humanly objectified, his actions are changed. He will respond to Jesus by acting in a way increasingly compatible with human worth or love.

Finally, not only is all history redeemed, but it is redeemed now. Eschatology takes on a present rather than a future meaning. Yet this emphasis on the present opens, rather than closes, the future. History by its very nature continues infinitely. Man, according to Williams, is created for communion, i.e. relationships with God, and this fact demands a continuing history. God did not create toward any end less than infinite enrichment.

What we in fact observe in the above summary is exactly the kind of Process influence on theology which we suggested in our consideration of Hartshorne and Christian. The Process understanding of the term absolute significantly changes eschatology, Christology, and soteriology. In fact these changes seem too radical to be reconciled with most traditional dogmatic formulations.

However, the theologians we have studied were prepared to make the adjustments in theological thinking in order to adopt the Process understanding of the term absolute. We shall now turn to other theologians, who are generally attracted by certain Process formulations, but who find it necessary to compromise the Process position when it comes to accepting the distinction between a principle of unity in which all entities participate, and a concrete unity in God's absolute pole.

Our particular interest is not to classify all Whiteheadian influenced theologians into over-precise categories. Indeed, a really satisfactory classification of the schools of thought growing out of Whitehead's writings would have to consider many factors other than how the term absolute is understood and applied. Our purpose is merely to show how significant the use of the term absolute is as one factor in determining differences among theological formulations.

CHAPTER XXIV: Lionel Thornton's Incarnational Theology

Hartshorne, Christian, Ogden and Williams demonstrate, as we have seen, writers who reject any interpretation of Whiteheadian thought which makes the term absolute refer to a universal principle of activity, rather than to an aspect of God. Accepting this distinction does, however, cause its supporters to introduce several significant changes in theological formulations. Although we have already indicated our preference for the foregoing interpretation of the absolute's reference, in spite of its implications for theology, we have also indicated that an alternative interpretation of the term absolute is held by other theologians, who also state that their theologies are intended to reflect Process thinking.

As we have said, equating a dipolar God with creativity is necessarily a contradiction. Once the absolute pole is associated with an ultimate principle of unity, God can no longer relate to the world. Unfortunately, our formulation of the reason for this distinction between God and creativity cannot easily be discovered in Whitehead's writings. We know from Cobb's excellent study[425] that Whitehead changes his mind as to the specific relationship between God and creativity. And, Whitehead does not specifically explain the stages in his thinking which lead to his conclusions.

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[425] Cobb. A Christian Natural Theology. pp.149f.

Nevertheless, we can show that because of the necessity of understanding the term absolute as referring to a pole of specific unity in God, the alternative of simply equating God and creativity produces a very subtle form of determinism. In other words, the influence of the concept absolute is what finally makes it essential to clearly determine one's position in respect to a distinction between the dipolar God and creativity. We will begin our illustration of those who do not make this distinction with some of the writings of Lionel Thornton.

Thornton is an obvious choice for several reasons. First, his work The Incarnate Lord, with which we will be concerned, is an attempt to develop a theology specifically consistent with Whitehead's works up to Process And Reality. Second, he closely follows Whiteheadian thought at nearly every point except that he does equate God and creativity. Third, in spite of generally great likenesses between Thornton's development of his position and the development made by Hartshorne, Christian, Ogden and Williams, some of his key theological positions do in the end differ from the latter four's positions, because of his interpretation of creativity. Fourth, the results of his equating the dipolar God with creativity lead to deterministic conclusions.

If we can show that it is in fact the influence of the usage of the term absolute that accounts for three and four above, we will have made our point. Furthermore, we hope to give evidence for the suggestion that the reason for equating God with creativity is that it appears to allow

reconciliation between Process and some other theological positions on key issues.

In the foregoing Chapters we have made it quite clear that what we mean by Process and determinism make them totally incompatible. Therefore, to say that one combines Process and deterministic qualities is to suggest some gross inconsistency. Of course, our interest is not to hunt for all the possible inconsistencies. We merely want to show how an association of the term absolute with creativity produces these inconsistencies, and why, from a theological point of view, certain writers may easily get caught in inconsistency with regard to the use of the term absolute.[426]

We have pointed out in the previous Chapter that Whiteheadian Process theology has a very difficult time in dealing with Christology. However, Thornton feels that the formulations developed by emergent evolutionism and Process clarify, rather than confuse, the meaning of the incarnation.

In his book The Incarnate Lord Thornton suggests that there were three possible philosophical systems which might have served the needs of his day: Hegelian Idealism, Evolutionary Mechanism, and Emergence/Process. The first two views, he suggests, have no possibility of accounting for

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[426]By in large the general agreement is that Whitehead is a true philosopher of Process and is in no sense deterministic. Therefore, deterministic implications in a writer would wrongly be ascribed to a Whiteheadian influence. However, Karl Popper argues that Whitehead in fact represents a newer form of an essentially Hegelian position, and therefore opens himself to deterministic interpretation. Popper is the only author known to the writer who develops this interesting,but otherwise unsupported thesis. cf. The Open Society And Its Enemies. Vol. II. pp.247f.

the Christian experience of the incarnation.

> Neither the immanent development of the Hegelian Idea nor the mechanistic conception of evolution left room for such past action of divine transcendence upon the field of history as the doctrine of Incarnation asserted... For according to one view the manifestation of the Idea in history is to be sought, not in a particular event of the past, but in the full development of the process; whilst according to the widely diffused doctrine of evolutionary progress towards a future goal, the ideal end of human endeavour must be sought in that future, and could not have been revealed once for all in the historical Christ.[427]

In other words, Thornton understands that the doctrine of the incarnation wants a culminating historical event, which does not prevent process, but which nonetheless gives meaning to the process. The analogy of organism, he says, used by emergence and Process, gives a model which makes sense out of these two demands.[428]

Referring in particular to the concept of emergent levels he says,

> At every step the whole which is typical for that grade is something more than a collection of its parts. The parts are held together in a unity; and the particular principle of unity which is there manifested is the highest law of being in that level. It is the distinctive principle which informs entities on that level.[429]

The above relates to the concept of organism because when we consider "...unity in complexity, of wholeness pervading

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[427] Thornton, Lionel Spencer. The Incarnate Lord. "An Essay Concerning The Doctrine Of The Incarnation In Its Relation To Organic Conceptions." (London: Longmans Green And Co., Ltd., 1928). p.22.

[428] ibid. p.32. [429] ibid. p.37.

a variety of parts, which we conceive the organism as possessing at any given moment of time, then we have a concept of the complete life-story of the organism as a concrete entity immanent in the spatiotemporal succession of events, yet transcending it."[430]

The principle of organism Thornton refers to as the "Eternal Order."[431] Man, adds Thornton, is the highest level of emergence because of his participation directly in the eternal order through his consciousness of it.[432] The transcendent reality of the unity of the eternal order fills the incarnational demand for the present fact of ultimate unity. The continued individuality within the eternal order allows for an on-going process.

The eternal order is therefore understood as a field of change, composed likewise of unity and diversity.[433] However, this field of change is set in what Thornton calls "Absolute Actuality."

> The source of such creative activity will then be a Being who embraces all the significance of His creation, whose actuality transcends in concreteness and comprehensiveness all that is to be found in the developing series of his creatures. God is Absolute Actuality, not in process of realisation but in concrete unchangeable reality. But then He cannot be <u>simply</u> the goal of a developing series. He must embrace in Himself that eternal order, with its transcending forms, principles and standards, is independent of the cosmic series.[434]

God is the all embracing changeless being who includes activity within himself. Activity itself is composed of an

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[430] <u>ibid</u>. p.41. [431] <u>ibid</u>. pp.56-57.

[432] <u>ibid</u>. pp.56-57, and p.67.

[433] <u>ibid</u>. p.84. [434] <u>ibid</u>. p.86.

aspect of all-embracing unity and of individuality. Therefore, says Thornton, we can think of God or Absolute Being because He is revealed through the eternal order.[435]

The above is essentially Thornton's analysis of Process. Before going on to see how he applies it to theology, we may consider its relation to the Whiteheadian position.

Clearly the eternal order is dipolar, rather like Whitehead's God is dipolar. However, the eternal order is not God. God is the changeless absolute actuality which includes the eternal order. Therefore, God himself could not be dipolar. However, Thornton is keenly aware of this problem as he says, "For religion the ultimate reality is not primarily unity or absoluteness or an eternal order, but God in His concrete individuality, with whom our concrete individualities have direct affinity and relations, analogous to the concrete relations of individuals in the social organism."[436]

Therefore, Thornton admits, we experience God as if he were what we have described as the eternal order, i.e. as being dipolar.[437] Here Thornton and Whitehead would be nearly at one. If Thornton said that God was the eternal order, which pointed to an indeterminate principle of activity, they would be in full agreement.

Indeed, Thornton lays further groundwork for just such an agreement by the suggestion that the eternal order has to serve as an object for man or man could not know it.

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[435] ibid. p.87. [436] ibid. p.94. [437] ibid. p.109.

> All our knowledge of physical objects is dependent upon the immanence in them of forms and principles of the eternal order. The more, then, the eternal order is immanent in objects, the more we shall know, the more they will mean to us. Thus the progression of knowledge does not merely keep step with the ascending series; it advances upon it. The higher the principle of unity embodied in an object, the more affinity does its meaning have with our minds.[438]

It seems that we are almost on the verge of being told, in a Whiteheadian fashion, that God is the eternal order, which is really an objectification of a principle -- perhaps the principle of creativity. However, at this point it becomes clear that Thornton and Whitehead are not talking about the same things at all. The language looks similar, but Thornton does not draw a distinction between the unity of God and a principle of unity in which all entities participate.

For, according to Thornton, the objectified eternal order reveals to man that there is a unity in which he does not participate.

> For all revelation as it converges upon man reaches its fulfilment by incorporation into concrete human activity. We have seen, in conclusion, that in man's experience of the eternal order revelation passes through the limitations of knowledge to a deeper level of concreteness in the activity of the developing character and its response to the good; and again that through man's ethical failure to respond to the good he can find no adequate fulfilment within himself of this perpetual tendency of revelation to incorporate itself into concrete human activity. The solution is found in religion. For God is the concrete actuality who is both agent and content of all revelation.[439]

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[438] *ibid.* p.127. [439] *ibid.* p.151.

In other words, Thornton says that the concept of absolute actuality, which is the changeless principle behind the activity of the eternal order, must also have a concrete content. The only way to provide for this is to say that the eternal order, the agent of the revelation, and the absolute actuality, the content of the revelation, are both God.

This is quite different from Whitehead, who if he used Thornton's terms, would have said that God is the eternal order and therefore must be a concrete object of the physical feeling, but that this feeling gives rise to a conceptual feeling of an indeterminate principle of creativity, in which both God and the World participate. Because, according to Process, activity can only be explained if there is true diversity, and true diversity demands that all entities have their own unique identity.

Thornton's formulations, on the other hand, suggest a God behind God -- an absolutely ultimate God behind the unity of activity. The absolute God of ultimate reality must necessarily be a particular, ultimate and predetermined unity. Indeed, Thornton admits this. He says,

> For the eternal order provides the principles of unity which determine the directive movement of the organic universe, of man and of history. But these principles of unity, while adequate in their totality to determine the directive movement of the cosmic process, are not adequate to provide a goal in which that process can come to rest. The process passes beyond each of them; and the self-determining activity of man, which is the highest of these principles in the series, is by its very nature self-transcending and therefore incapable of providing a last term for the process.[440]

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[440] *ibid.* pp.213-214.

Of course, as a true Whiteheadian would say, the eternal order does not provide an end for the process. However, that is because process itself is the ultimate. If process is not the ultimate, then there can be no real process at all. The very suggestion of a goal to the process means that the concept absolute has been understood as referring to an ultimate and predetermining principle of unity. As Ogden so well pointed out, a formulation such as Thornton's suggests that process occurs within the 'absolute'; but this statement is completely inconsistent. By definition something which is absolute is what it is. If it is said to be a unity of ultimate reality, then there is no room for the individuality necessary for change and activity.

We can see now that Thornton has made the absolute pole a unification of all reality by equating a dipolar God with an ultimate principle of process. The implication of this he rightly interprets to be that process has a final end. However, he misses the point that if this is in fact true, then no real process could occur at all.

Furthermore, we are now in a good position to understand why Thornton fell into this inconsistency. If the eternal order reveals God and is God, it means that Thornton can suggest quite easily that the name given to the "person" of God as agent of revelation is Jesus Christ. "For the doctrine of the Incarnation declares that Jesus Christ is Absolute Actuality incorporated into history in the form of concrete individuality."[441]

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[441] ibid. p.223.

Indeed, for Thornton Jesus Christ (embodied eternal order) functions much like God in the Whiteheadian system.

> But if Christ is the adequate embodiment of the kingdom of God, He embraces within Himself the eternal order and all its principles of unity. He is therefore the adequate goal of history, and takes up the universe and man into Himself.[442]

That is, the pole of unity of Jesus, like that of Whitehead's God, is a unity of history which serves as a goal for man by being the unity in which man can participate toward shaping reality. Put in other words, "Absolute Actuality as it exists in the Person of the Eternal Word becomes the principle of unity in a human organism."[443]

Jesus for Thornton is understood as the passive aspect of an otherwise impassible God. While this passive aspect is quite carefully described in Process terms as having an absolute and a relative pole, the fact that it is embodied in a higher absolute actuality renders it contradictory. The fact is that if God does not reveal himself as himself, then he does not relate in himself. In true Process a mediator between God and the world is not an allowable formulation, as long as such a formulation implies that behind relationships is a principle that does not participate in relationships.

In a final effort to try and assure the reader that he does not wish to suggest divine impassibility, Thornton looks to the doctrine of the Trinity to argue that God as

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[442] ibid. p.214. [443] ibid. p.232.

absolute actuality does have relations within himself.

> At every stage in its manifestation the created principle of finite individuality is seen to have two aspects, unity and plurality. It moves steadily towards higher forms of unity. But at no stage in the organic series is the aspect of plurality eliminated. Consequently if the analogy between finite and absolute individuality is to be drawn at all, it is a highly arbitrary procedure to select one aspect of individuality for the purpose of the analogy and to ignore the other; to regard individuality in God as an undifferentiated unity, when the experience of individuality, from which the analogy is drawn, is of a wholly different character.[444]

This is really not a solution at all. Williams, we may recall, pointed out that relations demand more than internal individuality if they are to be authentic (Williams would say loving). They also require freedom, action and suffering, causality, and impartiality.[445] And it is exactly these things that the term absolute, used to refer to one aspect of ultimate reality, does not allow. Whatever sort of relations occur within the God of Thornton's theology, they are relations that have no analogy to human experience.

We have seen that to a point Process formulations serve other, more traditional concepts of theology quite well. However, at the point of the distinction between the absolute pole and an indeterminate principle of unity, the would-be Process theologian faces real difficulties. This fact, as

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[444] ibid. p.390.

[445] Williams. The Spirit And The Forms Of Love. pp.114-122.

we have seen illustrated here, is especially true in areas such as Christology and eschatology. Only by changing from the Process understanding of the term absolute was Thornton able to speak of a goal for all process, and a unique place for Jesus Christ within his system. Yet this change is far from insignificant, as it re-opens many of the very dilemmas -- especially determinism -- which Process was so eager to avoid.

Thornton is interesting because the way he uses and misunderstands Whiteheadian Process thought is really quite obvious. Therefore, his work is a great help in allowing us to clarify the issues involved. However, we will next move to theological thinkers who are somewhat more subtle in the way in which they alter Whiteheadian Process thought as it is interpreted by Hartshorne, Christian, Williams and Ogden.

CHAPTER XXV: Norman Pittenger's Theological Response To Whiteheadian Influence

In his book Christology Reconsidered Pittenger says of Thornton that,

> While he is prepared in the earlier portions of The Incarnate Lord to accept and to use (to great effect) the philosophy of process developed by Professor Alfred North Whitehead, he draws back as soon as he comes to the consideration of the sense in which Jesus may be styled final and the way in which it may be said of Jesus that he transcends other revelatory activity of God. At this point, but not before or elsewhere, he feels obligated to insist that the whole Logos, as we might describe it, is intruded into the world in the incarnation of the Word in Jesus Christ; thus he succeeds, quite contrary to what must have been his intention at the beginning, in making that event partake of an entirely different order from all the rest of the divine revelatory activity in the creation.[446]

It is very important for Process not to think of Jesus as the sole or entirely special revelation of God, since, as we have illustrated, the concept of a dipolar God demonstrates that God relates through all events. Therefore, Pittenger takes the alternative of suggesting that the relation between God the man Jesus, and God and other events in the world, are not different in kind, but in "degree". He expands on this point when he says,

> The locus of that specific activity which we designate when we say Jesus Christ is the total complex of event, compounded of long

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[446]Pittenger, Norman. Christology Reconsidered. (London: SCM Press, Ltd., 1970). p.19.

> Jewish preparation, the appearance and life of Jesus himself, the response made to him as he was received in the days of Palestine, in the experience of him as risen from among the dead, and in the primitive and continuing Christian community which also responded to him -- and, by legitimate extension, the totality of his impact upon human history down to the present moment. The man of Nazareth is indeed the center, or as I have phrased it the focus, of that activity of God.[447]

Pittenger becomes even more specific about Jesus' relationship to God by saying that Jesus more fully than any other event fulfils God's aim; which is that the world should realise its deepest potentialities.[448] Therefore, in order to help us develop a model of what it means to say that Jesus realised God's aim to a unique degree, Pittenger says; "Rather, the model which we shall find most satisfactory for understanding Jesus of Nazareth is that of a man who with his own distinctive qualities and gifts is yet most deeply conscious of the history out of which he has emerged, is profoundly aware of his relationships with his fellowmen and his responsibility towards them, and is most seminal (we might put it) in providing opportunities for further and richer development for others in the years which follow his necessarily limited period of life in this world."[449]

In the above Pittenger has succeeded in describing Jesus to be exactly like the Whiteheadian God. First Jesus is said to hold deeply in consciousness the history out of which he has emerged; but since Pittenger earlier suggested

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[447] ibid. p.86. [448] ibid. p.83. [449] ibid. p.70.

that Jesus emerged out of all history, Jesus must hold all history in deep consciousness. All of the past is the content of the absolute or mental pole of God. Second, Jesus is profoundly aware of relationships. Indeed, the uniqueness of God's relative pole is that it is relative to the highest possible degree. Finally, Jesus provides opportunities for the future. According to Pittenger the scope of this provision takes on a divine dimension.

Pittenger even says that Jesus is God "incognito."

> For Christian faith, at any rate, if man is to see God 'plain' it must be under the incognito of manhood, which is why Christians believe that God is incarnate, enmanned, in the human life of the Man Jesus. We do not see God 'plain' in nature, but we see something of what he does and how he does it, under <u>that</u> natural incognito. And from what he does and how he does it, we learn something of what he <u>is</u>.[450]

Pittenger has clearly made some changes from Thornton's position. What the changes amount to, however, is that instead of doing what Thornton does, and making Jesus break-in on history, Pittenger says that Jesus himself emerges out of history. He is a newly emergent level.[451] Of course Thornton talks about emergence, but, as we have said, his Christological formulations indicate that he really does not take seriously the implications of Jesus as himself emerging. That is, Thornton breaks too radically the continuity of history at Jesus.

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[450] Pittenger, Norman. <u>God's Way With Man</u>. (London: Hodder And Stoughton, 1969). p.46.

[451] <u>ibid</u>. p.144.

We might say that Jesus for Pittenger is Thornton's eternal order with a real history. That is, Jesus is God fully revealing himself through a process of history. Process is thus the content of revelation.

The agent of the revelation is Christ, i.e. a new dimension of society. "God has established through that event, with the free consent of those who were participant in it, a society or community of fellowship -- in Christian terms, the Church -- in which there is common life, life in Christ, for the promotion of the good of each entity and for the good of the whole."[452]

If we are right that Jesus is God, then in Jesus, God is revealing himself. We therefore get back to Thornton's point that, through Jesus, God is revealed as the ultimate process itself. To be more specific, Jesus reveals a dipolar God, who is equated with the ultimate process of the universe.

Indeed we are specifically told by Pittenger that God has two aspects;

> Whatever 'absolutes' we attribute to God consists in his unfailing capacity to be himself, even while he is also intimately related to all that goes on and may go on. He is indefatigable Love, luring and attracting others to new and untried modes for love's expression.[453]

We have often repeated that the absolute pole is for Process a specific concrete unity as Pittenger implies in the above. However, if God as dipolar is the content of

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[452]Pittenger. Christology Reconsidered. p.142.

[453]Pittenger, Norman. The Christian Church As Social Process. (London: Epworth Press, 1971). p.121.

revelation, this means that his absolute pole is a specific ultimate unity. Indeed at one point Pittenger interprets God as the source of ultimate creativity:

> He is also the 'chief exemplification' (in Whitehead's phrase) of all principles necessary to describe the world. Hence as the chief exemplification and the ultimate source of creativity, he is the creator (not the artificer, but the artist or poet) and the redeemer (the one who saves all that can be saved) of the world, as we have presupposed and on more than one occasion explicitly indicated. God is the center of the cosmos, not man.[454]

Interestingly, Pittenger realises that if God is the source of creativity, the universal process must have a final goal. He says, "The final goal is 'in' God -- in fellowship with cosmic Love to know the enabling and ennobling of all that we have in us to become."[455]

By changing Thornton's concept of the eternal order to a concept of Jesus himself as an emergent level of reality, Pittenger has certainly moved a bit further from a dogmatic position. However, it is clear that he does not really fit into a Whiteheadian system as regards the use of the term absolute. As we have seen for Pittenger Jesus is God's revelation of himself as the principle of creativity. In which case the absolute pole becomes a pole of ultimate reality. Therefore, the distinction between the two forms of unity is not maintained.

The advantage that Pittenger's formulation has for his

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[454]Pittenger. God's Way With Man. p.171.

[455]Pittenger. The Christian Church As Social Process. p.60.

theology is that it appears to allow him to retain the idea of a God that relates, without disallowing a goal for the process. In talking about churches he says, "Nothing that is good need be altered in content, but a wholly new spirit will enter into the life of a congregation that is thoroughly conscious of the stupendous fact that it is a 'cell' of the Body of Christ, with the vocation to be Christ to the particular community in which it is set."[456] As we discussed earlier, the analogy of the Body of Christ can be interpreted to mean that, as head of the body, Christ becomes a singularly dominate event so that the individuality of any other events, or societies of events, within the body, are subordinated to the good of the whole. The fact that subordination as Pittenger suggested, might occur with the consent of the occasions involved does not mean that such a structure could actually exist. Indeed Hartshorne and Christian seem to suggest that the harmony implied by such a formulation is not in fact possible in a Whiteheadian context.

Therefore, we must conclude that, while Pittenger is clearly not a traditional dogmatic theologian, his Christology, in particular, is not immediately persuasive as being a contribution to consistent Whiteheadian Process thinking. Indeed, his Christology raises some doubts about whether it is at all compatible with his use of the term absolute. Unless the issues surrounding the use of the term absolute can be more satisfactorily dealt with, Christology seems to remain a very difficult topic for Process theologians.

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[456]Pittenger, Norman. The Historic Faith And A Changing World. (New York: Oxford University Press, 1950). p.137.

CHAPTER XXVI: Two Further Theological Responses To Whiteheadian Influence

We will conclude our discussions of Whiteheadian influenced Process theologies with Bernard Meland's The Realities Of Faith and John Cobb's A Christian Natural Theology. In terms of the implications of the use of the term absolute, we find these men closer to a strict Whiteheadian position, as we have developed it, than either Thornton or Pittenger. However, they also demonstrate certain inconsistencies with the Whiteheadian understanding of the term absolute, by tending to equate a dipolar God with the principle of creativity.

A. Bernard Eugene Meland

Like several of Pittenger's works, Meland's The Realities Of Faith places a strong emphasis upon establishing a unique role for Jesus while maintaining a dipolar concept of God. Pittenger, as we recall, attempted to modify Thornton's Christology by arguing for the emergence of Jesus out of history, rather than accepting a sudden entry of the 'Logos' into history, which tends to make the incarnation the sole event relating God and man. Meland goes even further than Pittenger in modifying Christology by suggesting that before Jesus the Hebraic concept of covenant also reveals a God who relates to man -- a dipolar God: "...the covenant relationship -- the notion that God comes to man in a personal encounter and established a relationship with his people, binding them together in a mutual pact of

obligation and responsiveness. It is a relationship correlating faithfulness and freedom."[457]

The idea of a relationship which represents mutual freedom, Meland takes as central to the Process conception of God. Indeed, he says it is an attempt to respond to the issue of the Many and the One.[458]

The events of the Cross and Resurrection give Western Christianity, however, a special and distinctive understanding of the principle of relatedness implied by the covenant. "Together these two themes provide the clue to what is distinctive in our Western Christian conception of goodness, which implies an attitude of abandon toward the cost of relationships and its corollary, an investment of self, with confidence in the ultimate resolution of the crises that may follow from such a course, issuing in possible death and momentary defeat."[459]

According to Meland, therefore, Jesus illustrates that the cost of relationship -- the giving of one's self -- is rewarded by a resulting unity which affords the individual a depth he could not otherwise have. Jesus' self-sacrifice opened up new possibilities for relationships between man and God, just as the formation of any unity always opens up new possibilities of relationship. Indeed, Meland says,

> Relationships thus provide a dimension of meaning and possibility of creativity which exceed the reality of parts taken as isolated data. It is the mystery of relationships,

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[457]Meland, Bernard Eugene. The Realities Of Faith. "The Revolution In Cultural Forms." (New York: Oxford University Press, 1962). p.46.

[458]ibid. p.47. [459]ibid. p.49.

> giving to events or phenomena their incalculable quality even as they yield to our apprehension of them, which contributes to a sense of depth in dealing with the living situation in any of its aspects.[460]

Of course, one might well remain consistent to Whiteheadian thought, and nevertheless maintain that Jesus' actions opened more possibilities for relationships than the actions of any other single entity.

To this point nothing that Meland has said would suggest that his Christology denies that God himself relates to man through all events, i.e. that he has a relative pole. In fact, Meland has clearly said that God did relate to man other than through the incarnation. Nevertheless, as Meland gives more attention to his Christology, the nature of God's relatedness becomes less consistent with the Whiteheadian understanding of dipolarity. In order to analyse this fact we must begin by looking more carefully at Meland's use of the concept of relatedness.

To relate consciously, says Meland, is to gain a vision of the possibilities that come only from relationships.[461] It is a vision of unity, which may rightly be called faith. However, says Meland,

> There is no faith that may claim ultimacy in the sense of possessing or conveying absolute truth. Yet there is no faith devoid of ultimate reality in what it bodies forth. This is to say that all faiths are relative in what they are able to embody and express of ultimate reality. The point that we need to grasp if we are to assume a constructive stance in

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[460] ibid. p.94. [461] ibid. p.161.

> this new imagery of thought is that relativity is itself a witness to ultimacy.[462]

Essentially the above is consistent with the Whiteheadian concept of the absolute pole of God. The absolute pole could be called an object of faith having a concrete content, but its content would not be all of reality. Therefore, one cannot speak of ultimate, absolute truth, i.e a particular ultimate unity.

However, the above quotation must also be understood by considering what Meland means by the use of the term 'relativity'. He says,

> But relativity does not necessarily mean the loss of all decisive norms or of decision in the judgment of meaning or value. Neither does it mean indifference to these concerns. It does not imply that one thing is as good as another, one faith as good as another faith. On the contrary, it denies simply the reality of arbitrary absolutes and invests absoluteness in reality itself, wherever it occurs, under whatever guise it appears.[463]

In Meland's formulation of relativity, there is the equating of the dipolar God with "ultimate reality". It is true, according to Whitehead, that some factor unifies present reality. However, relativity is a real cosmic factor precisely because God's absolute pole does not include the present subjective aim of all entities. The principle of individuality is rigorously maintained by the denial of simultaneity between contemporary occasions.

Therefore, the absolute pole of God must be a unity of

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[462] *ibid.* p.163. [463] *ibid.* p.163.

all non-contemporary occasions, and not of all reality. Otherwise, if the absolute pole is a unity of the contemporary occasions, there is no real individuality. Therefore, to say that Process "invests absoluteness in reality itself, wherever it occurs, under whatever guise it appears," and to equate God with ultimate reality, one must be very careful about how the term "reality" is used. If reality means objective reality, well and good. However, if reality is meant in a broader sense to include the cosmos, the formulation is inconsistent. As we have often suggested, to ascribe absoluteness to ultimate reality -- Whitehead's creativity -- by equating it with a dipolar God is by implication to contradict the very possibility of activity.

Unfortunately, in the quotation immediately preceding the above, Meland uses the term ultimate reality, and says that relativity is a witness to ultimacy. If he means that relativity, with a particular, i.e. not arbitrary, unity, is witness to the ultimate reality of a dipolar God, who also has a particular, not an arbitrary unity, then he in fact falls into the trap of making the term absolute refer to an ultimate unity.

It is again Christology that lays this trap. As Jesus is equated with relativity by Meland, and as God is equated with the ultimate, we have another case of God being equated with creativity. Such an equation always means that the absolute pole of God functions in a predetermined way. In other words, the unity with God which Jesus reveals is an ultimate unity which functions as a divine plan.

We already have evidence that Meland does in fact equate God with the ultimate. Further evidence of this is Meland's use of Imago Dei in company with the concept of God as Creator. He says,

> The Imago Dei is thus seen to be a kind of formula in Christian doctrine, conveying the fact that every man stands related to his Creator, and through this bond with every other man, as creature. Creation thus lays upon each individual man a threefold demand, which is what gives complexity to his existence. He is made for God, he is made for other people, he is made for himself. The living out of these relationships becomes man's daily burden as well as his opportunity. And it is his ultimate hope.[464]

In the above we see no clear evidence of Meland taking seriously the Whiteheadian point that man is not only a creature, but is also a co-creator with God. The reason for this is that by making God the ultimate reality, Meland has equated the dipolar God with creativity. Therefore, the term absolute would apply to an ultimate concrete unity, which could not have relationships. In other words God could not relate directly to man.

If man does not directly participate in creativity, then Jesus, as the principle of relativity, according to Meland, reveals and makes possible this participation. Meland speaks of Jesus as revealing a "New Creation" which emerged from history.[465] The new creation sounds very good indeed.

> The orders of justice and reason were not set aside. They were the antecedent structures in

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[464] ibid. p.207. [465] ibid. p.261.

> which the new emergence, agape, appeared in the relations of men who had become responsive to Christ. The initiating vehicle of agape, releasing the matrix of sensitivity or creative ground of spirit into full actuality as a historical being, was the person of Jesus. All one can say is that this structure of consciousness became the bearer of sensitivity in which love was dominant.[466]

Clearly the above analysis equates Jesus with Meland's description of relativity. Thus relativity becomes similar to Thornton's order, i.e. Jesus; and ultimate reality, i.e. God, to Thornton's absolute actuality. That is, the ultimate principle is a God who relates, but also has a pole of unity. However, as we have seen, such a formulation disregards the implications of the term absolute applying to God's pole of unity. The absolute pole is a particular unity and a principle of limitation. If the ultimate has a particular unity, then that unity predetermines the plan and goal of all reality. Jesus thus becomes the revelation of a particular plan and goal, and the new creation is thought of as a final unity _in_ which relations continue. However, such an idea, as we also have indicated, is contradictory.

B. John B. Cobb, Jr.

Cobb in his book _A Christian Natural Theology_ argues in the Whiteheadian tradition that God has a dipolar nature. For example, he says,

> At this point, I suggest that the otherness of God expresses itself, paradoxically if you will, in his absolute nearness. Every other

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[466] _ibid._ pp.258-259.

> entity can be somehow distanced, either as temporally past or spatially separate, but God's presence is absolutely present. He is numerically other, and qualitatively, incomprehensibly other. But this other is spatio-temporally not distant at all.[467]

On the one hand, says Cobb, God does have an aspect of "otherness", but at the same time he is present in events. Indeed, according to Cobb, God is unlike any other entity in that he alone relates to "all" events, i.e. to the "whole" process of events.

Cobb arrives at his understanding of dipolarity by starting with the assumption that while Whitehead thinks of God as a concious actual entity, one is better to think of God as a living person.[468] What makes a living person unique for Cobb is his "soul."

> The soul is not an underlying substance undergoing accidental adventures. It is nothing but the sequence of the experiences that constitute it.[469]

Therefore, the concrete content of the divine soul would be the unity of God's experiences -- which in fact means all events. In keeping with this understanding of soul, God, says Cobb, must be a society of actual occasions, i.e he must share the immediacy of all actual occasions.[470]

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[467] Cobb. A Christian Natural Theology. p.243.

[468] ibid. p.188.

[469] ibid. p.48. This is not to suggest that animals other than man are without souls. (cf. p.56).

[470] ibid. p.189. One might be reminded of the distinction that Christian made between God as a unity of past events, i.e. objects, and present events, i.e. events of immediacy, which are not included in God's absolute pole. Here Cobb is suggesting that God is a unity of objects and events.

Cobb readily admits a possible objection to this position.

> One may object that the concrete individuality of the past in its own subjective immediacy is lost. That is true. But if the same living person now enjoys a new experience that includes everything in the old and more, this loss seems to be no loss of value.[471]

Therefore, we have established that the pole of unity in God is what Cobb calls a soul. However, as God also has a relative pole, there must be a diversity of events or potential events which gives the divine soul its complex character. Cobb accepts this point, and argues that God is called dipolar because he is the ultimate source of both unity and diversity.

Cobb begins,

> Whitehead explicitly explains that creativity is in his system what prime matter is in Aristotle, namely, the material cause. This suggests, correctly, that the problem of a doctrine of creation in Whitehead is much like that in a philosophy based on Aristotle; the role of the creator is to provide form for a reality given to him.[472]

Cobb's above analysis of Whitehead's position is not totally justifiable. Activity, as ultimate, implies for Whitehead that individuality must always be maintained along with unity. That is, there must be a distinction between the unity of God's absolute pole, and a principle of unity in which all entities participate. Therefore, only the past is included in the absolute pole, while the present retains its multiple character. God, it is also true, must work

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[471] *ibid.* p.191. [472] *ibid.* p.206.

within creativity as a given. However, what Cobb neglects to mention is that creativity for Whitehead is not shaped by God alone; rather the form which creativity takes is also contributed to by man. It was to assure man's participation in creativity that led Whitehead to draw the distinction between creativity and God.

However, Cobb would clearly not agree with this distinction. He says,

> We have already seen that the decisive element in the initiation of each actual occasion is the granting to that occasion of an initial aim. Since Whitehead attributes this function to God, it seems that, to a greater degree than Whitehead intended, God must be conceived as being the reason that entities occur at all as well as determining the limit within which they may achieve their own form.[473]

What Cobb suggests is that God himself provides the necessary multiplicity for activity to take place. In other words, God is equated with creativity. However, in all of this Cobb has simply ignored the implications of the absolute pole. When a dipolar God is equated with creativity, the absolute pole becomes a specific unity of all reality. Once an ultimate unity has been accepted, the only process that one could talk about is a process within the absolute pole. However, such a formulation suggests that process can take place without true individuality. That is, to use Cobb's terms, God's soul becomes the only source of unity, and other entities, therefore, lack a true unity of their own,

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[473] *ibid.* p.211.

i.e. they lack a soul.

If God is equated with the principle of creativity, he is certainly Creator in a more dramatic sense than Whiteheadian thought would allow. And so long as one ignores the implications of the term absolute in this formulation, it appears to be another step in reconciling Process to more traditional theologies. However, once the implications of the term absolute are introduced, such a formulation becomes impossible.

If God is creativity, and if one admits the necessity of his dipolarity, then God becomes the determination of everything and process is a mere delusion. Of course, in Cobb's defence, we must agree that is is quite easy to overlook the fact that the unity of God's soul must have absoluteness. However, as we have seen, it is in large part the very implications of the absoluteness of God's pole of unity that led Christian, and finally Hartshorne, to accept that God was in fact an actual entity, and therefore did not share the immediacy of other actual entities.

We have used Thornton, Pittenger, Meland and Cobb to illustrate a group of Whiteheadian influenced Process theologians who make various efforts to get around the Whiteheadian distinction between God and creativity. Their reasons for the attempt to avoid the Process implications of making the absolute pole less than an ultimate principle of unity have become clear. The Process use of the term absolute, as we have seen, introduces radical changes in theological concepts such as Christology, soteriology, eschatology and God as Creator.

CHAPTER XXVII: Whiteheadians, Teilhardians and Theologians of Hope

In Chapters VIII and XVI attention was given to the works of Teilhard de Chardin. This was done for two specific reasons. First of all Teilhard's thinking was a product of many of the same influences which contributed to what we now call Process philosophies. Therefore, his writings, though not generally available until the late 1950's, fitted historically into the period of our study. Second, his formulations were very useful in helping to clarify some other Process positions, including that of Whitehead.

From what has already been said about Teilhard, it is clear that he could well be seen as a potential influence on theology. However, as his chief works were unavailable until recent years, his influence became important only in the 1960's. Whitehead's writings, on the other hand, while not widely read or acknowledged before the publication of some of Teilhard's works, nevertheless, as we have seen, exercised considerable influence on the writings of a few philosophers of religion and theologians. Therefore, at the contemporary revival of interest in Whitehead himself, a limited but significant Whiteheadian school was already established.[474]

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[474] A very complete bibliography of writings in the area of Process Thought, which demonstrates quite clearly the revival in interest in the topic, is to be found in: Process Philosophy And Christian Thought. Delwin Brown, Ralph E. James, Jr., and Gene Reeves, eds. (New York: The Bobbs-Merrill Company, Inc., 1971).

Interestingly, the new awareness of Whitehead and the wide response to the publication of Teilhard's works have developed alongside one another, with relatively little thought of or interest concerning the relationships between these two thinkers. In our paper we have made certain efforts to relate them, relative to our particular interests. Chapters XVI and XVII contained discussions of some of the major differences between Teilhard's and Whitehead's understandings of the term absolute.

It would of course be interesting to show in detail how the theologies influenced by Teilhard, and those influenced by Whitehead, differ respective to their different understandings of the concept absolute. However, we chose only Whitehead's work to illustrate the importance of the influence of the term absolute. To illustrate the point in equal detail among Teilhardians would greatly lengthen our study. Furthermore, our point of the importance of the usage of the term absolute has already been made. And our earlier comparison of Teilhard and Whitehead, along with the development of Whitehead's influence on theology in terms of the use of the term absolute, may perhaps serve as a guide for some equally careful analysis of Teilhardians.

Nevertheless, we can briefly demonstrate that some of the chief differences between contemporary Whiteheadians and Teilhardians center around issues associated with their respective understandings of the term absolute. By simply pointing to these differences, therefore, we will be able to give an additional illustration of our point that the term absolute must be carefully understood, if one is to

clarify much of the reasoning behind certain theological formulations which grow out of Process Thought.

The content of our illustration is the newly published Hope And The Future Of Man, which is a collection of papers from a conference among Whiteheadians, Teilhardians and Theologians of Hope at Union Theological Seminary in New York.[475] As the title of the book suggests, eschatology is a major topic. This topic, we have carefully illustrated, is greatly influenced by how one understands the term absolute.

Cobb in speaking of Whitehead says that, while there is an element of anticipation for the future, Whitehead places the locus of value in the present.[476] While Cobb understands that others have a specific future in mind, he says,

> But Whitehead did not share that vision. For him, the course of events has neither beginning nor end. Human history, of course, does have a beginning and will have an end, but the end will be simply extinction... Whitehead took this infinity of process quite seriously.[477]

On the other hand, Philip Hefner points out that for Teilhard the future is far more specific.

> To sum up, it is impossible to understand the future except relative to a deep probing of the past-present of which it is the future. It is impossible to understand the

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[475] Hope And The Future Of Man. Ewert H. Cousins. (3 Cromwell Place, London: The Teilhardian Center For The Future Of Man, 1973). British edition, paperback.

[476] Cobb, John B., Jr. "What Is The Future? A Process Perspective." ibid. p.5.

[477] ibid. pp.6-7.

> past-present (which is the present identity of man and the world) except relative to the future which reveals what is is destined to become.[478]

Here is a very important issue. Hefner sees the present as influencing a definite future. Whitehead, according to Cobb, sees the present as influencing an infinite process. This very problem of eschatology we have already traced in part to the influence of the understanding of absoluteness. Thus we see illustrated how central its influence can be on establishing theological positions.

Another point which we made was that the distinction between God's absoluteness and creativity greatly influences the Whiteheadian formulations. Wolfhart Pannenberg points to this issue as being the source of a second division between Teilhardians and Whiteheadians:

> To be sure also in Whitehead's perspective God is the source of unity by providing the subjective aim for every occasion which realizes itself by a process of subjective unification of its world. Could not this unifying activity be interpreted to mean a degree of participation in God's act of creation in the sense of Teilhard's creative unification? The difficulty is that creativity in Whitehead's own thought is separated from his idea of God. The consequence seems to be not only that Whitehead's God is hardly conceivable as creator of the world in the strict sense of a <u>creatio ex nihilo</u>, but also -- and even more important -- that an unlimited pluralism of events results, each of which forms a unity in itself but does not converge with all

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[478]Hefner, Philip. "The Future As Our Future: A Teilhardian Perspective." <u>ibid</u>. p.17.

> others toward a final unity of all actual occasions.[479]

Daniel Day Williams in his response to Pannenberg clarifies the point that Whiteheadians do not totally split creativity off from God.[480] We have ourselves demonstrated this by referring to God as the objectification of creativity. Of course, we also said that to forget that God "objectifies" an ultimate is to run into the danger of making the absolute pole an ultimately determined unity. However, the absolute pole is within God; it is not a pole of the principle of creativity. Williams agrees with our point when he says: "What Whiteheadians do say is that the unity of the creative process is to be found in the community of God's being with his creatures, not in the absolute unity which is summed up in a final event."[481]

The German school of theology sometimes called The Theology of Hope, in which Jürgen Moltmann, Wolfhart Pannenberg and Johannes Metz are often included, is a third modern tradition with interesting parallels, as well as dis-similarities, to Whiteheadian thought. The view of eschatology is an example in which Williams see Theologians of Hope at issue with Whiteheadians. He says,

> Now what does Professor Pannenberg see in process thought which differs from his position? This, I think: he sees process

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[479] Pannenberg, Wolfhart. "Future And Unity." ibid. p.64.

[480] Williams, Daniel Day. "Response To Wolfhart Pannenberg." ibid. p.86.

[481] ibid. pp.86-87.

> theology as having a more loosely organized universe in which there is an endless plurality of events; and therefore no final event which consummates or determines the unity of the whole.[482]

In view of the above illustrations, the understanding of how Process uses the term absolute is of key importance if one wishes to sort out and appreciate certain of the chief differences between it and other modern theological positions. Of course, work similar to what has been done for Whiteheadians in this paper remains to be done for Teilhardians and Theologians of Hope. Hopefully, we have illustrated how interesting such a project would be.

Recently, the importance of the use of the term absolute has been somewhat overlooked. This is indeed unfortunate as the implications of the term continue to form a significant part of the background for theological, as well as for philosophical, thinking.

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[482] *ibid.* p.85.

CHAPTER XXVIII: Conclusions

What is Process Philosophy? Clearly this question can be answered in several different ways. One could say that it is a philosophy which takes the human experience of change seriously -- ultimately seriously. Another definition might be that Process is a philosophical response to the biological theory of evolution and the physical theory of relativity.

Both of these explanations have certain merits, and could hardly be called wrong. However, on the one hand, Plato and Hegel, for example, who are not called Process philosophers, certainly concern themselves with the significance of change. Therefore, the emphasis on change is not quite adequate as the way of fitting Process into the history of philosophy.

On the other hand, as we have seen, evolution and relativity influenced the rise of philosophies other than Process, including Neo-vitalism and Neo-mechanism. Furthermore, while Process styled many of its present formulations in response to positions taken by various natural sciences, other of the Process formulations pre-dated modern science to the time of Plato and Aristotle, and are thus better understood as responses to differing philosophies. Therefore responsiveness to the theories of evolution and relativity does not capture the peculiar significance of Process.

However, it is impossible to appreciate what modern Process is attempting to suggest philosophically, without a careful reference to certain important scientific developments of the late nineteenth and early twentieth centuries. To reach an adequate understanding of Process, therefore, one must analyse it in such a way that it is seen simultaneously in the context of the histories of science and of philosophy.

Our thesis has been that one very useful and essential way to define Process philosophy, keeping in mind the above demands required of that definition, is through an analysis of its understanding and use of the term absolute.

In the early Chapters we saw that the issue of absoluteness developed in science when the physical theory of mechanism began to be called into question by such new sciences as biology and psychology. Mechanism assured continuity and causality by asserting that physical laws were absolute. Neo-vitalism insisted upon the necessity of true individuality and freedom, which meant ultimate pluralism and the relativity of laws.

Mechanistic formulations demanded an 'absolute' when they suggested that unity cannot be accounted for without changeless laws. Vitalistic formulations argued that the absolute laws are predetermining, and they must therefore be rejected as eliminating the possibility of plurality. However, vitalism was left with the problem of accounting for unity.

Process thinkers observed that for themselves the real significance of vitalism was that it experimentally demon-

strated that the activity of life, especially self-conscious life, required both true unity and true diversity. As the concept of absolute physical laws eliminated true diversity in the material world, the source of activity could not be innate to matter. Mechanism had merely taken the fact of activity for granted, without stopping to consider that when the term absolute, which always suggests ultimate unity, is applied to a principle that governs the activity of all reality, the diversity required for activity cannot be explained.

Therefore, vitalism appeared to be justified in suggesting that some "vital force" had to be the real source of activity. However, the vital force was not totally random activity. Even the activity of life appeared to follow certain organisations. Of course, if the unity factor in the vital force had been referred to as absolute, then vitalism would have had the same problem as mechanism regarding true diversity.

What was required by vitalism, therefore, was a cosmic activity in which a principle of unity and a principle of diversity were the relata. This point having been accepted by Process, there remained the problem of deciding what was the nature of the activity that related these two factors. The most widely adopted model for what relates unity and diversity was that of an organic principle. Generally, the universe was thought of as a single conscious organism, which divided itself into parts, thereby allowing for internal relationships.

However, it appeared that, as the entire universe was unified by the cosmic organism, it was perfectly correct to refer to the organic principle as absolute. Whitehead observed that this formulation continued to imply that the universe was determined by the nature of the organic principle. In other words, the unity of any part of the cosmic organism was in fact the unity of the whole organism; and its parts, therefore, made no distinctive contributions to unity.

The only way to avoid the determinism of the activity of entities in the universe, said Whitehead, was to think of each entity as being an organism in its own right. That is, every entity was to enjoy its own unique unity. Of course, to think of each entity as being 'absolute' would lead to ultimate pluralism. Therefore, Whitehead suggested that in the wider sense absoluteness should apply to the unity of the actual entity God. Of course, in the narrow sense all entities have "individual Absoluteness." To understand this conclusion we must look once more at the term absolute.

Whitehead noted that the term absolute had been used in two respects. In mechanism, and in some forms of vitalism, it had referred to an abstract principle of unity. On the other hand, philosophy used the term absolute to refer to a concrete unity whose content was all of reality. Whitehead saw that both of these understandings of absoluteness made valid points. However, in formulating a consistent concept of absoluteness they needed to be combined.

If unity was correctly thought of as an abstract principle, then mechanism afforded no solution as to why this unity was not presently realised. Likewise, if all reality was already concretely unified by the Absolute, as some philosophy suggested, there was no accounting for present activity.

However, if the term absolute referred to both a concrete unity, and also an abstract concept of unity, then Whitehead saw a way that unity could exist along with diversity, and activity could be explained. Whitehead argued that the concrete unity of the universe was the past. The past alone was absolutely organised and determined. Therefore, he assigned the whole of the past to be the concrete content of the absolute pole of God. However, as the present became actualised it moved into the unity of the past. Therefore, the past was also an abstract principle of unity. Thus understood, the absolute pole allowed for an indeterminate future.

No finite entity unifies the whole of the past. Therefore, Whitehead assigned the term absolute to the infinite entity God, who alone holds the whole of the past in the present of his absolute pole. However, explaining why Whitehead referred only to the divine unity as absolute, does not explain the nature of that unity, which assures diversity, shared by all entities. In taking up the question of the unity of the present we began by moving into the field of philosophy.

The place of Process within the history of philosophy during our period of study was the second topic considered.

The field of philosophy during the late nineteenth century was roughly divided between Positivists and Romanticists; the former being materialists and the latter spiritualists.

The spiritualists, generally influenced by the Kantian and Hegelian traditions, believed that their positions could be held against the positivists, as no supportable alternative to idealistic epistemology could be presented. Idealistic formulations demanded an absolute Subject, who held in a unity the plurality of changeless forms. These forms served to organise or limit the conscious activity of all finite organisms.

The idealistic epistemology, if accepted, leads directly to a specific metaphysical position -- determinism. In this regard the positivists and the spiritualists were quite the same. The former saw reality determined by material laws, the latter understood reality as determined by the spiritual subject -- God.

However, the argument for relativism, i.e. pluralism, entered the field of epistemology at this time with renewed force. The traditional opponents of the idealists had been the realists. Traditional realism had always suggested that knowledge was relative. It was relative to a given subject's perception of a given object. This, of course, implied a plurality of subjects and objects.

The great strength of idealism had been its ability to account for the unity of knowledge. Realism, on the other hand, had as its strength the ability to nicely explain the errors and differences of perceptions, but was unable to account for the unity of consciousness.

Process thought saw that part of the problem facing

idealistic epistemology was a confusion over the implications of the term absolute. In terms of conscious activity, idealism suggested that the term absolute referred to a unity which served for the evaluation of mental data, but clearly this unity did not totally determine mental activity. In other words, the limitation of conscious activity allowed for diversity. Metaphysically, on the other hand, the term absolute referred to an ultimate concrete unity which did not allow diversity.

In giving the term absolute the same reference in both epistemology and metaphysics, Whitehead argued that every actual entity, including God, had its own unique past as a principle of limitation. As we have already said, to God's past Whitehead gave the name absolute pole. Furthermore, Whitehead said that what makes unique history possible is that all entities share in a principle of activity, called creativity.

Thus there are for Whitehead two forms of unity. The first is the absolute pole of God. The second is the common sharing of all entities, including God, in the principle of creativity. However, the principle of creativity is not referred to as absolute. In the first place creativity has no concrete content; it is pure activity, yet to be made concrete. The only unity with a concrete content, in any ultimate sense, is God's absolute pole. In the second place creativity does not serve as a principle of limitation; it is sheer potential. Only the past, i.e. God's absolute pole,

places limits on the whole of the universe.

The above understanding of the term absolute not only allows for the free activity of finite entities, but it actually promotes it. If a finite entity confronted an infinity of possibilities, it would be unable to act. By limiting the number of possibilities, the past makes the future actions possible. Whitehead speaks of God's providing an initial "aim" for all entities, when he wishes to make clearer that the past allows for the future, i.e. that limitation makes activity possible.

Therefore, by presenting an analysis of the developments in the Process understanding of the term absolute, we have arrived at a way of defining Process thought. We have defined Process as a trend in twentieth-century philosophy, and not as the discovery of a single thinker. The chief problem has been to find the basis upon which the various strands of Process' development could be related. Apart from such a basis the conclusions of Process thinkers can appear to be a total contradiction to traditional philosophical formulations.

For example, when one first encounters the term absolute in Whitehead's writings, its meaning appears to be totally foreign to the usual understandings of the term. However, as we have shown, this is not the case. The Process understanding of the term absolute is reached only after a thorough analysis of what the term implied for thinkers in the sciences and in philosophy. Of course, as we have seen, the term absolute also is especially helpful in illustrating how Process thought developed. Indeed, the development of

the understanding of the term absolute serves as the basis for connecting the various aspects in the overall formulation of the Process position.

Just how the Process understanding of the term absolute affects the special science of theology was the topic of our last Chapters. Here, with particular reference to the Process position held by Alfred North Whitehead, we gave further attention to the principle of creativity. Knowledge of this principle depended upon an object. The objectification of the principle of creativity is God.

God was further described as an actual entity; that is, as having an absolute and a relative pole. The absolute pole represents the ultimate category of the 'one', but as a concrete object it is the particular unity of all realised possibilities of relatedness. Therefore, God has absoluteness in the sense that his is a unity of all relationships.

Our particular thesis was to show that a clear understanding of the Process use of the term absolute helped to clarify the reasoning behind some of the important developments among Process theologians. We therefore made special reference to the influence of the understanding of the term absolute on Christology, soteriology and eschatology. The details of this influence have been carefully analysed, and do not need to be repeated here.

Therefore, our intention is to move into reflections on some of the consequences of the Process understanding of the absolute pole for the whole of Process thought. Such a procedure will allow us to better demonstrate the significance of our thesis, by looking at it in the broadest

possible context. To begin with, mankind, according to Process, is but a perishing event in an infinity of change. The absolute pole is powerless to bring creation of new relationships to a termination.

Of course there is harmony within the absolute pole; a unity cannot be otherwise. However, there is no possibility of the cosmos ever being taken up into that pole. Cosmic harmony, whatever that might mean, cannot include changelessness. Furthermore, all our experience leads to the conclusion that change can produce error, disharmony, destruction and suffering. The new which is produced by change always provides the possibility of disaster. Genetic changes mean death to organisms, political changes mean unrest and revolution, galactic changes mean the destruction of solar systems. Nothing definite finally survives the fact of change.

Men seem anxious about change, and no philosophy appreciates this fact more than Process. God has been a source of comfort from the fear of change: He who was called changeless could be appealed to to take us up into Himself and preserve us. No, says Process, this simply is not true. If God is changeless, he has no concern for our comfort, if he changes we cannot turn to Him to escape change. God for Process is powerless to comfort those who are afraid to perish as individuals, and who find no comfort in the fact that the whole of the past is preserved in God.

In our day, on the other hand, many find it quite satisfactory to get along while accepting the fact that, if

God exists at all, he is powerless. Those of this group who are humanitarians sometimes look to the possibility of mankind -- human society -- forming at least a temporary utopia. Unfortunately, such utopias are usually based upon the concept of conformity. Undoubtedly man can learn to conform, but what does this accomplish? Clearly it will not stop the process of the cosmos. Sickness will continue, natural disasters will go on, and men who have learned only to conform -- to avoid the new -- will perish as a species; just as all species who are no longer able to adjust perish. Of course, man might remain static for millions of years before becoming extinct, but length of time is of little value to the cosmos.

Give escape from change or utopian concepts a theological expression, and we have one way of understanding the two great doctrines of salvation: Nirvana and Heaven as popular concepts. Process denies both. Nor, as man should now be clear, can God change this situation. He cannot even send his son to create the possibility of a perfect cosmic harmony.

If Process is right, and man cannot escape change, then the alternative is for man to use change. The complaint is sometimes made that the modern world changes too fast. Perhaps it does not yet change fast enough. To be more specific, it seems that some areas of human activity, such as the social sciences, cannot keep pace with the natural sciences. Therefore, the argument is made that there is merit in slowing change.

Process could only deny this. If there is value at

all, that value must be understood within change. It is the results of change, after all, that shape reality. This is where Process sees God as providing a certain kind of security. It is the security that no new efforts lack meaning, as they remain an everlasting aspect of reality.

Of course, some particularly harmful changes might well produce results that most men would feel hardly comforted to know were everlasting. However, it is true that Process goes on to point out that even the worst of changes, by creating a new unity, open possibilities, that otherwise would not have been available. Ultimately, Whitehead believes, God's goodness will assure that these possibilities counteract the harm done.

In a sense this is quite logical. The absolute pole does have the power to make a unity out of all relationships. The results of this new unity may well be positive to some entities and harmful to others. The point seems to be, however, that while a man cannot be assured that his actions will bear good fruits for him, he may well be assured that what he does will be good for some entity at some time. As Process never ends, entities continue to exist because of whatever unity is the absolute pole. The absolute pole has the power to assure that nothing can be ultimately destructive to all entities -- this is how God's goodness must be understood.

On the other hand,the more possibilities that are opened up to human action, the greater is the chance that some of those will provide the possibilities that man himself requires. That is, the greater will Man's chances be

that he can adjust to change. Here is the key. Value is understood in terms of change, and value is enjoyed if one is able to adjust to change. As change is inevitable, man's hope is to assure that some of the possibilities opened up by change are of value to him. This is possible because participation in the very nature of change is open to man as it is to all entities. In other words, man's hope is in his being the forerunner of change. The more he incorporates change, the more he becomes like God.

Teilhard, for example, suggested that man could adjust to change through an increasing emphasis upon research. That is, he could acquire the knowledge to participate in change consciously, by understanding it and directing it. Here God's absolute pole is a real help. As we have said before, it assures that changes will count. They cannot be meaningless.

Of course, there is no justification to the suggestion that Process promotes research only within the natural sciences. Indeed, the concept may apply to research in any field, including theology. No one could, for example, deny that Jesus, Buddha, and Muhammed opened countless possibilities for man. Unfortunately, religions tend to see their accomplishments in terms of static and final achievements rather than as possibilities to be taken up and developed even further. However, nothing is final. There is no structure in all reality that can promote finality.

Clearly Process cannot be viewed as consistent with most dogmatic formulations of a religion. Dogmas may indeed

provide insights into new possibilities of knowledge, but the dogmas themselves must be developed rather than advocated. They are akin to scientific hypotheses which remain useful for a long period of time, but fade more and more into the background as new experiences are uncovered. Therefore, for example, the Christian Process Theologian is one who attempts to develop all the possibilities that a particular dogma might offer.

This means that dogmas must necessarily receive greatly diverse interpretations. The more consistently a specific dogma is interpreted, the less useful it becomes. Important dogmas are those which allow many developments. Any dogma will finally be exhausted, but its worth will have been judged by how far it has carried man to new possibilities.

Religious communities, therefore, should best be understood as groups of people involved in the research and development of dogmas. Their cohesiveness will not be based on agreement, but on the mutual benefit acquired through the enjoyment of new possibilities. Furthermore, there is no reason to assume that the dogmas, from which they will work, will be borrowed from a single tradition. The only reason to class Process theologians as Christian, for example, is that, as a matter of convenience, it designates those who deal chiefly with materials from the Christian tradition.

The careful study of the Process understanding of the term absolute leads us to conclude that many of its implications for Process thinking, as summarised in the foregoing pages of this Chapter, come into conflict with traditional theological formulations. Furthermore, the final Chapters

of our paper demonstrated that it is difficult to compromise the Process position, in order to make it appear more consistent with such areas of theological concern as Christology, soteriology and eschatology. Nevertheless, what we have said need not eliminate the possibility of Process thinking serving as a useful tool for traditional theology, in spite of its understanding of the term absolute.

However, the evidence suggests that its usefulness does not lie in its specific conclusions, but rather in the "method" that it follows. Therefore, we will conclude by illustrating this point. To understand the Process method, we must make explicit the point that the term absolute refers to a single aspect within a "relative" universe.

Speaking of everything from ethics to perceptions as "relative" is far more consistent with common usage today than many theologians and preachers appear to realise. The point is that some concept of relativity is real to many people. However, in the popular understanding of relativity there is a danger of its becoming a twentieth-century brand of hedonism. In both the "individual" serves as the point of reference for decisions to act, the difference being that in the former, unlike in the latter, the individual <u>depends</u> upon the objective reality of his relationships. However, relationships may be engaged in purely for one's own immediate advantage. Man's wastefulness of natural resources is just such a relationship. The general argument put forward to discourage a hedonistic way of viewing the individual as "the" point of reference is that if one does those things which reduce the possibilities of his

continuing to have relationships, he is engaged in self-destruction. Continuing with our above illustration: if man wastes his natural resources, the human species will die out for want of food, fuel and water. This we might call the commonsense check on the dangers of the popular understanding of relativity.

Thus we suggest that the idea that an individual depends upon relationships is not an uncommon understanding. This means that the consideration of the implications of relationships becomes a valuable source of information for a decision to act. The problem for commonsense is setting the "limits" on any attempt to analyse the relationships, that must be considered, respective to a decision to act; because in a relative universe, says Process, relationships in the abstract are infinite.

We may finally move directly to our point that Process is a method. In particular it is a way of dealing with the modern theory of relativity. In part its usefulness can be understood as a way of understanding what the term absolute can refer to within a relative universe. It therefore provides a special understanding of "fact": a single fact is a limitation, rather than an "absolute". It is a limitation resulting from the particular relationships constituting the perspective of a given individual or group of individuals. The term absolute refers to the totality of realised relationships, of which single facts are a part of the concrete content.

The role of the Process philosopher can be to guide men

in selecting the most appropriate limits; that is, to help men draw the line at how many relationships must be taken into consideration, realising that total knowledge of concrete relatedness is available only to God, before a decision to act can be reached. Furthermore, as the facts upon which any decision is made are now understood as a part of relatedness, no decision to act can excuse men from continuing to do research into the whole of relatedness. No topic can ever be closed from further investigation. This is what Teilhard implied when he spoke of the necessity of more and more human energy going into research.[483]

If the above paragraph soundsrather like a scientist's view of truth, our point is in part being well made. Many of the greatest Process thinkers, Whitehead and Teilhard included, were men of science. While one must deplore the generally inadequate background in the natural sciences given to many secondary school and even university graduates, Process as a method, as we hope to show, is not useless to those disciplines often thought of as far removed from the natural sciences. Indeed, a scientist, who is in fact a technician, would find the Process method as foreign to him as would the theologian who functions as a dogmatist.

The comparison made in the above will be clarified as we outline and develop the Process method. This method may be summarised as being composed of three major assumptions. First it assumes that facts are concrete limitations of reality. They are useful but not definitive, and they

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[483]Teilhard. Human Energy. pp.135-136.

depend upon God as a principle of limitation. Second this method assumes that the more relationships considered within a decision to act the more valuable will be the results, with the following qualification: The role of the expert, including the theologian and the scientist, is to determine the narrow margin between sufficient consideration of relationships and a confusion of data. Such expertise is achieved by research. However, research does not mean the elimination of commonsense. Third the results of any action are assumed to elude absolute prediction, even by God. Therefore, the method assumes a "follow-up" operation -- to use modern terminology. Limitation, research, and follow-up: these are the three key insights into the adoption of a Process method.

Limitation for Process is based upon three principles: heredity, chance, and God. With the fairly recent discovery of the DNA and RNA radicals, genetic research has achieved an extraordinary new level of precision. Whatever one may think of Jacques Monod as a philosopher, his book Chance And Necessity[484] is a clear account of certain directions in modern genetic research that must surely influence all thinking about the place of the human species in the universe. One point of his study, relevant to our discussion, is the great extent to which all human action is governed by the individual's genetic structure. For example, there appears to be evidence that the ability to use language is a part of the genetic code.

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[484]Monod, Jacques. Chance And Necessity. trans., Austryn Wainhouse. (London: Collins, 1972).

Of course the details of genetic research must be left in the hands of those who are trained in the relevant disciplines. However, the trend of their discoveries is quite consistent with a Process understanding of the past as a principle of limitation. Man's particular genetic development, covering perhaps millions of years, imposes the great limitation that a fairly narrow range of conditions are necessary to the survival of the human species. Therefore, any decision to act must consider those relationships that make survival possible. For example, one of the chief relationships that must be considered in the adoption of power stations using atomic energy is the balance between the necessity of energy for life, compared with the possible dangers resulting from reactor failures. At some point a decision must be reached on the basis of the immediate demands for survival -- and the need for such a decision results in part from the way we are genetically.

In moving to the factor of chance, as an aspect of limitation, we enter onto a rather difficult topic. Students of heredity, since Darwin, have talked about chance as an element in evolutionary adaptation. On the other hand, most Process thinkers introduce chance as a factor in discussions of mathematical or logical "probability." An adequate comparison of what chance means in these various disciplines has, so far as the writer knows, not been made in recent years. However, there does seem to be consistent agreement on the fact that chance should not too quickly be associated with freedom or indetermination. Rather, chance is more correctly included within a discussion of limitation.

Perhaps a place for us to study chance is at the local bookmakers. Bets fall in a spectrum between a "long-shot" and a "sure-thing." The beginner may assume that the person placing a bet has only a few possible choices. This is far from true. A staggering number of combinations for placing a bet are available at the most modest establishments. The mathematician, armed with figures and a slide-rule, would turn the placing of a bet into a study in probabilities -- this has been known to happen. Others study the conformation of the field (in the case of horses or dogs more so than football), while still others select the most appealing name. No one is a sure winner, but skill and experience are usually more successful.

The point is that a given individual's chance development of certain of his genetic potentials -- often at the cost of others -- gives him a decided advantage in particular situations. Therefore, the writer would define biological chance as the skills which a given individual has developed, respective to the situations in which he is forced to function.

Thus far, the writer feels that the reader will be quite willing to accept the point that heredity and chance help to make up what we call limitation. However, when we introduce God as a principle of limitation our meaning may appear obscure. Therefore we might remind ourselves that one of God's functions is to present a universal spectrum for chance, somewhat similar to that spectrum introduced for the individual by his heredity.

Because we live in a universe of relativity, i.e. all things being related, every human action necessarily has universal significance. Yet the problem for commonsense is to place the concept of the "universal significance" of human actions into a meaningful perspective. In Cobb's opinion, as we saw, the greatness of a religion rests in its ability to allow adherents to discover such meaningfulness. Norman Pittenger and Teilhard de Chardin, agreeing in principle with Cobb, judge Christianity very highly because its doctrine of love supplies a meaningful perspective in which all action can be universally related.[485] Thus to show love in a particular relationship is to act in a universally valid fashion -- "to do God's will on earth as it is in heaven."

Indeed one of the ways in which Process supports the Christian ideal of "love" relationships is its contention that God's concrete nature is a unity of relationships. Therefore, relationships, i.e. actions, which promote unity, are of the greatest value to the cosmos. For, only in the formations of unity are new possibilities opened for entities.

A fact is a limitation based on reference to heredity, chance and God. The fact is relative both to the individual and to the totality of the universe. Having thus discussed the "basis" of fact, we must move to the "establishment" of facts by research. Of course, research can be carried

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[485]For example Pittenger. The Christian Church As Social Process. p.50, and Teilhard, Human Energy. p.33.

out in any field, but, because of the Process understanding of limitation, the three most crucial areas of research are biology and genetics, mathematics and logic, and philosophy and theology; other areas of research support these three.

One of the most perplexing efforts made in modern thought has been the attempts at classification of the sciences. Although surprisingly few people see this as being a problem. However we are not attempting such a classification. Nevertheless, it seems clear that even a brief survey of Process thinkers will reveal the emphasis placed upon the three areas of research mentioned above. Teilhard somewhat developed genetics, Whitehead was a mathematician, Hartshorne is a student of logic, and Pittenger and Cobb are theologians, etc. This is not an accident, but the direct result of the Process method. In other words, Process holds that research in these three areas can consider the greatest number of relationships, while avoiding confusion of data.

As all three areas are necessary, no one of them can claim absolute superiority in its ability to arrive at "facts". Furthermore, what we have just said is easily grasped by commonsense through an illustration of one of the most pressing contemporary issues. Birth control, for example, directly relates to genetic science. The information that birth control is practised differently by different parts of our society may well affect the the long-term genetic makeup of the species. Apparently the numbers of births among professional couples in the United States is

decreasing more rapidly than among certain other groups. What, if anything, should be done about this? Such a question can hardly be answered apart from a consideration of population growth trends in general. Thus we have need for mathematics, whether it is applied by a sociologist or economist. However, we also know that worthwhile statistical studies must be made and understood partly in terms of emotional, philosophic and religious attitudes.

Without going into detail, the above example should make the point of how these three areas of research interact around a vital issue. The problem which the Process method hopes to correct is the fact that these areas do not always work in a complementary fashion. Of course, each of these areas is extremely technical, and each of them appears to illustrate vast internal disagreements. Even mathematics is not always a field for clear agreement -- though some philosophers assume that math is as clear-cut as 1+1=2. Nevertheless, the Process method assumes that facts are best reached when the three areas are harmonised. Therefore, in adopting the Process method, one must be prepared to cope with the fact that men such as Hartshorne make no apologies for their use of formal logic. Thus the basis of fact is turned into concrete action through research, which includes a harmonising of data from biology and genetics, mathematics and logic, and philosophy and theology, and all other areas which support these disciplines.

Finally we come to the concept of "follow-up." The writer is not completely happy with this term, but is unable to find a better one. Research at its best will allow the

greatest number of relationships to be clearly considered in terms of a decision to act. Yet the very nature of limitation and research allows for a "field of indetermination," which demands a follow-up.

Unfortunately an understanding of 'indeterminate' is usually reached through a concept such as the "unknown future". However, the future is not something to be discovered, but is something to be created, according to the Process understanding of the absolute pole as the whole of the past. We must, therefore, make a clear distinction between the concepts of the future and of an indeterminate field of action. One may say anything about the future or nothing. The two approaches are one and the same. As the future is an infinity of possibilities, anything which one wishes to say about it is correct. This would include contradictory statements. "The sun will rise tomorrow" and "The sun will not rise tomorrow" are equally true statements about an infinity of possibilities.

What we commonly call the "present" is the real indeterminate field. It is the field of action qua action. Whenever an action takes place new relationships are set up with consequences that even the most thorough research could not have absolutely predicted. In this sense action is discontinuous with the past. Of course, in most cases the discontinuity cannot be observed. However, in the wider sense we do experience discontinuity as growth, development, movement -- the dynamic aspect of reality. At this point the reader may draw back in disbelief. Surely there is

nothing which demonstrates continuity better than the growth of a tree or the development of a fœtus.

If this is true, then diversity and newness cannot be explained. If all movement is an absolute continuity, then human action has no ultimate meaning. An absolute continuity implies that every action is predetermined. A predetermined action has no value in and of itself. Process thought firmly insists upon the ultimate meaningfulness of action, which demands a corresponding field of indeterminateness. However, as we have tried to make clear, this field cannot be one of infinite possibility. Such a field would in itself make action impossible. Therefore, within a given present there must be a finite number of possibilities, i.e. of possible relationships. This finite number is indeterminate in two ways. First it can be indeterminate in the sense that only certain of the possible relationships will be realised. Second it is always indeterminate in the exact results of the relationships that are realised. This means that Process must hold that no relationship is always true in terms of giving specific results.

Most school boys of today are aware that sometimes $1+1\neq2$, when they are working with a base other than ten. The discovery of this simple fact is what is meant by follow-up. It may be supposed that many people added 1+1 and got 2 for many years without ever considering that this relationship was not always and everywhere the same. It is this very assumption of absolute consistency that Process is unwilling to accept. In the Process view there is decreasing evidence that facts may be called absolute.

Thus even relationships, which in the past appear to hold true, must remain open for investigation. This does not mean that in the past certain relationships were not true, but it does not therefore follow that they continue to be true now. The above opens the whole question of what is objective knowledge. Because of this the reader should refer to Karl Popper's treatment of that subject.[486]

None of the above observations about Process thinking would deny the point that God, because of his unique perspective, "knows" the possible future with the highest possible degree of probability. Indeed, it would seem that the theological concepts of God's omniscience and human freedom might be helpfully reconciled by a careful consideration of modern theories of probability.

It may well serve as a review of what we have been saying if we examine how the present comes to be an indeterminate field, as opposed to an infinity of possibilities. In other words, we need to explain why the fact of discontinuity does not deny the present unity of reality. The obvious answer is that some ultimate continuum or principle of unity must have a place in reality.

Whitehead, we may remember, calls this ultimate principle, creativity. Another way of speaking of the continuum between the whole of the past and the whole of the present is that the continuity results from Relativity itself. The universe is the same yesterday, today, and tomorrow -- relative. To speak of a relative universe, in the

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[486]Popper, K.R. Objective Knowledge. (Oxford: The Clarendon Press, 1972).

Whiteheadian sense, is to speak of entities unified by a present potential for relatedness. This insight becomes the ultimate basis which Process offers for a commonsense understanding of relativity. Man is not determined by his being relative to other entities in the universe, rather man has the indeterminate potential to relate to all other entities. In his relations, therefore, man helps to determine the universe rather than only being determined by it.

If theologians find the Process method foreign to their immediate assumptions, that is understandable. However, it would be unfortunate indeed if the method was rejected on the grounds that it is totally useless for traditional theology. Living in the age of relativity unquestionably presents man with new and difficult problems, as well as exciting possibilities. Procedures are needed if we are to effectively meet both the problems and the possibilities, and Process seems to offer a set of such procedures. That the Process method can be adapted to very different situations is proven by the growing scope of literature in the general field.[487] The point of these comments has been to encourage the even wider consideration of the value of Process as a method for theology, in spite of the fact that its understanding of the term absolute leads to a new set of assumptions about God.

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[487] cf. Process Philosophy And Christian Thought. eds., Delwin Brown, et al. (New York: Bobbs-Merrill Company, Inc., 1971).

APPENDIX

"Relationship, Relatedness and Relativity"

The concepts of "relationship", "relatedness", and "relativity" are widely used without a clear distinction in meanings. In part the ambiguity arises from the fact that in defining or illustrating any of these three concepts one or both of the two remaining terms are often implicitly or explicitly included in the definition. For example, a "relationship" is sometimes defined as a "relatedness" among objects or qualities.

More precisely, however, a relationship implies a multiplicity of objects or qualities, which makes a relatedness possible. F.H. Bradley says,

> I still insist that for thought what is not relative is nothing. But I urge, on the other hand, that nothings cannot be related, and that to turn qualities in relation into mere relations is impossible.[1]

Bradley's statement not only points to the idea that for thought relationship implies a multiplicity, but it also raises the issue that individual qualities are in fact realised only in terms of relatedness. That is, no single object or quality is recognised totally apart from the context of a specific relatedness.

In keeping with this line of speculation, Varisco says that relationships and relatedness imply one another. "It

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[1]Bradley. Appearance And Reality. p.30.

is now clear," he says, "that the necessity of relations completely solves the problem of reconciling unity and multiplicity -- of making us understand how unity and multiplicity imply each other, so that the one is impossible without the other, exists only in the other."[2]

What has just been said is clearly subject to the interpretation, hinted at by Bradley, namely, that objects or qualities do not exist apart from the fact of relations. Indeed, the theories of relativity speak to this supposed necessity of relatedness. As Whitehead puts it:

> One of the most general philosophic notions to be used in the analysis of civilized activities is to consider the effect on the social life due to the variations of emphasis between Individual Absoluteness and Individual Relativity. Here 'absoluteness' means the notion of release from essential dependence on other members of the community in respect to modes of activity, while 'relativity' means the converse fact of essential relatedness.[3]

In view of the above we may now make a brief summary of at least one way of distinguishing the three concepts under consideration. The concept 'relationship' refers to the interaction among objects or qualities, which objects or qualities have 'individual Absoluteness'. Christian, for example, holds to such individual absoluteness in the following:

> The actual world is a plenum of actual occasions. The region basic to any occasion has definite spatiotemporal positions and boundaries, and no two occasions have the same

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[2]Varisco. Know Thyself. p.154.

[3]Whitehead. Adventures Of Ideas. p.54.

> region. The extensive relations between the regions of actual occasions are limited to (a) external connection and (b) mediate connection. Any mediating region which is a real standpoint is externally connected with the real standpoints it mediately connects.
>
> Thus the region of an actual occasion is exclusive of the region of any other occasion. No two actual occasions have any spatiotemporal parts in common. In this sense an actual occasion transcends every other occasion.[4]

'Relatedness' refers to a relationship in which the resulting interpenetration of objects or qualities is determined by a factor outside of the relationship. This understanding of relatedness can be expressed as an increase in complexity or quality. Driesch speaks of the complexity of relatedness: "If, then, in a given natural system an increase of the degree of manifoldness, i.e. of complexity, occurs, of the kind just explained, and if on the other hand, we know that this increase has not been prepared in any way inside or outside the system in space, that there has not been any kind of spatial preformations, then, unless we are to violate the rationale of change, we are obligated to introduce non-spatial factors of becoming, and credit them with the increase of complexity that has occurred."[5]

However, this very understanding of relatedness calls into question the 'individual absoluteness' of the qualities or objects involved. Absoluteness appears to be a characteristic of the relatedness or unity, rather than of the

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[4]Christian. An Interpretation Of Whitehead's Metaphysics. p.104.

[5]Driesch. The Problem Of Individuality. pp.51-52.

multiplicity. In other words, the relatedness determines the factors involved in the relationship.[6]

The very point of traditional realism, on the other hand, is that relations do not alter those things which relate. As Perry points out, "But according to the theory of the externality of relations, terms acquire from their new relations an added character, which does not either condition, or necessarily alter, the character which they already possess."[7]

Finally, the theories of relativity address themselves to the formation of a system which includes both the concepts of relationship and relatedness. That is, relativity takes into consideration individual absoluteness as well as essential relatedness. As Whitehead says,

> The stubborn reality of the absolute self-attainment of each individual is bound up with a relativity which it issues from and issues into. The analysis of the various strands of relativity is the analysis of the social structure of the Universe, as in this epoch.[8]

While in the following we will look for the more philosophical aspects of the theories of relativity, it will also be well if we state them more or less in the scientific terms of their original formulations; attempting, however, to avoid the complex mathematical notations. We are interested here in four theories of relativity; the Classical, the

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[6]Bradley. Appearance And Reality. p.204.

[7]Perry. Present Philosophical Tendencies. p.319.

[8]Whitehead. Adventures Of Ideas. p.376.

Special and General theories of Einstein and the Whiteheadian theory.

All four theories of relativity assume both the fact of multiplicity and the fact of unity. Therefore, each must account both for the factors of a relationship, and that which relates. According to the Classical theory of relativity, adopted by Newtonian physics, material bodies are related in absolute time and absolute space. Einstein summarises the classical theory as follows:

> If relative to K, K' is a uniformly moving co-ordinate system devoid of rotation, then natural phenomena run their course with respect to K' according to exactly the same general laws as with respect to K. This statement is called the principle of relativity (in the restricted sense).[9]

In other words, the laws of measurement, of Euclidean geometry, holding in all those situations described above, provide for the explanation of how systems relate. While this does not deny multiplicity, the laws implied function independently of any specific system.

Einstein, while agreeing that the Newtonian formulation is generally true for experience, says that it cannot cover all situations. Northrop gives a very good summary of how Einstein's Special Theory of relativity and Newton's theory differ:

> It may be noted, parenthetically, that Einstein has not, as many people have supposed, departed from the distinction introduced by Newton between the private

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[9]Einstein, Albert. Relativity The Special And The General Theory. "A Popular Exposition." trans. Robert W. Lawson. (London: Methuen & Co., Ltd., 1921). Sixth edition. p.13.

> time and space, varying from person to person, and with circumstances, which we immediately sense, and the public time and space of physics ... Einstein has merely changed the mathematical definition of the public time and space, revealing thereby an essential connection between them, and a resultant relativity, the same for everybody, varying not with the sense organs of the observer as do sensed space and time, but with the astronomical, physical objects to which the scientist chooses to refer his measurements.[10]

The formulation of Einstein's Special Theory of relativity takes into consideration the observer's point of reference, with the result that the measurements achieved are relative to it. Einstein says, "Every reference-body (co-ordinate system) has its own particular time; unless we are told the reference-body to which the statement of time refers, there is no meaning in a statement of the time of an event."[11] In other words, those factors which relate help to determine the nature of the relatedness. The principle of the relatedness is not independent of the relationship.

The Special Theory is merely a correction to the Classical theory concerning "a uniformly co-ordinate system devoid of rotation." It only allows for movement in a vacuum without regard for gravitational fields. Einstein therefore points out its weakness: "'All bodies of reference K,K', etc., are equivalent for the description of natural phenomena (formulation of the general laws of nature),

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[10]Northrop, F.S.C. The Meeting Of East And West. "An Inquiry Concerning World Understanding." (New York: Collur Books, 1966). pp.76-77.

[11]Einstein. Relativity The Special And The General Theory. p.26.

whatever may be their state of motion,' cannot be maintained, because the use of rigid reference-bodies, in the sense of the method followed in the special theory of relativity, is in general not possible in space-time description."[12]

Therefore, Einstein introduced the General Theory of Relativity in order to extend the application of the principles introduced in the Special Theory. For our purpose it is best to illustrate Einstein's General Theory by a brief consideration of the concept of "ether". As motion at a distance cannot be accepted by physics -- it implying action from without a system -- a field is required in which action must take place. That is, a field is required if action is understood to occur in situations other than those involving contact between bodies. "Thus the endeavour toward a unified view of the nature of forces leads to the hypothesis of an ether."[13]

In pre-scientific times, action was generally thought to be the direct result of bodies coming into contact with one another, or of bodies being moved by a force from outside of the system -- a supernatural force. These ideas attempted to speak to the nature of the ultimate source of activity, and also to describe finite observations about the nature of action. With the rise of modern science, certain concepts, such as the law of gravity, suggested that one body could influence the action of another body,

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[12] ibid. p.97.

[13] Einstein, Albert. Sidelights On Relativity. trans., G.B. Jeffery and W. Perrett. (London: Methuen & Co., Ltd., 1922). p.5.

without the bodies coming into direct contact. As such relationships as gravitational influence did in fact occur, some principle of relatedness was necessary in order for the relationship at a distance to be possible. Ether, therefore, became the name given to the factor of relatedness between bodies whose influence on each other's actions was not the result of direct contact, and certainly not the result of a supernatural force.

Classical relativity assumed a mechanical quality for the ether, namely, its immobility.[14] This was rejected by Einstein's Special Theory, and the understanding of the nature of the ether was replaced by his General Theory. "According to this theory the metrical qualities of the continuum of space-time differ in the environment of different points of the space-time, and are partly conditioned by the matter existing outside of the territory under consideration."[15]

The relationships among objects in Space-Time are influenced by certain effects which the objects have upon Space-Time itself. Therefore, that which relates is relative to the relata themselves. And, on the other hand, nothing exists apart from relatedness. Einstein says, "Since according to our present conception the elementary particles of matter are also, in their essense, nothing else than condensations of the electromagnetic field, our present view of

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[14] Einstein. Sidelights On Relativity. pp.10-11.

[15] ibid. p.18.

the universe presents two realities which are completely separated from each other conceptually, although connected causally, namely, gravitational ether and electromagnetic field, or -- as they might also be called -- space and matter."[16]

In summary we may now say that "relationship" emphasises the relata, "relatedness" that which relates, and "relativity" insists upon both as equally necessary factors. However, we must now turn to the Whiteheadian understanding of relativity.

The chief problem posed by relativity is the clarification that must be made of the interaction between the background (that which relates) and the peculiar factors (the relata). According to Whitehead, Einstein's formulation -- or better his interpretations of the mathematical formulae -- were not an adequate clarification.[17]

Einstein supposes that Space-Time has a heterogeneous structure resulting from the causal influence of mass bodies. This being the case, Whitehead argues, the relations between Space-Time and the mass bodies are external.[18] Thus we are taken back to the concept of relationship without relatedness. Nevertheless, Einstein's theory does have an advantage over the traditional concept of relationship. Einstein's formulae can be used to calculate the relatedness between objects provided all the relationships

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[16] ibid. p.22

[17] Whitehead uses the term "fact" to refer to the background ('ether'), and the term "factor" to mean a limitation within fact -- the factor being peculiar to itself. The Principle Of Relativity. (Cambridge: The University Press, 1922). pp. 24-25.

[18] ibid. p.15.

involved are considered. However, in the case of relativity, all relationships means a nearly infinite number. In other words, all the space-time reference systems in the universe have to be considered in order to give specific meaning to a particular space-time reference. The point of reference of a given individual, for example, can have specific meaning only relative to all other co-ordinate systems of reference. Thus Whitehead says, "It has always been a reproach to those philosophers who emphasize the systematic relatedness of reality that they make truth impossible for us by requiring a knowledge of all as a condition for a knowledge of any."[19]

Whitehead proposes to develop a theory of relativity which accounts for "internal" relatedness. He says,

> The point of this doctrine on which I want to insist is that any factor, by virtue of its status as a limitation within totality, necessarily refers to factors of totality other than itself. It is therefore impossible to find anything finite, that is to say, any entity for cogitation, which does not in its apprehension by consciousness disclose relationships to other entities, and thereby disclose some systematic structure of factors within fact. I call this quality of finitude, the significance of factors.[20]

Each factor in itself is viewed as a systematic structure of factors within fact. This discloser, common to all factors, is merely a limitation of fact itself. Or as Whitehead himself puts it:

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[19] ibid. p.73. [20] ibid. pp.17-18.

> In the classical doctrine the ether is the shy agent behind the veil: in the account given here the ether is exactly the apparent world, neither more nor less. The apparent world discloses itself to us as the ingression of sense-object amid events.[21]

At first this sounds rather like the problem faced by the concept of relatedness. The "ether" is clearly that which relates, and this seems to override the way in which the relata influence the relatedness. To this possible objection Whitehead responds,

> Thus an event[22] signifies objects in mutual relations. The particular objects and their particular relations belong to the sphere of contingence; but the event is essentially a 'field' in the sense that without related objects there can be no event. On the other hand related objects signify events, and without such events there are no such objects.[23]

The preceding summaries of various positions have been far too brief to adequately develop the implications involved within each of them. However, our purpose has been simply to establish some distinctions among the concepts "relationship", "relatedness" and "relativity." On the other hand, we may relate the above to the topic of our thesis by suggesting that the concept of relationship implies the absoluteness of relata (multiplicity); the concept of relatedness implies the absoluteness of that which relates (unity); and the concept of relativity implies the absoluteness of a particular point of reference.

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[21] ibid. p.37.

[22] Whitehead says, "I give the name 'event' to a spatio-temporal happening." ibid. p.21.

[23] ibid. p.26.

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